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## Akzo Chemie America

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## Superfund Tax Tentatively Established

Congressional negotiators have tentatively agreed that superfund taxes on feedstock chemicals should be \$1.4 billion over the next five years, an increase of \$200 million over the previous level.

The decision came as House and Senate conferees resumed efforts last week to find a way to finance a proposed \$1.5 billion reauthorization of the stalled superfund basic waste cleanup program.

The negotiations resumed two days after Environmental Protection Agency Administrator Lee M. Thomas warned lawmakers the agency would run out of money for superfund by the end of the year unless Congress acts before its planned October 3 adjournment.

Should adjournment occur before reauthorization is accomplished, there will be no superfund program when Congress returns

next January," he wrote in letters to Sen. Robert Stafford (D-Vt.) and Rep. John Dingell (D-Mich.), the chairman of the congressional committees that drafted the new legislation.

The House and Senate passed differing versions of five-year extension plan last year, and a House-Senate conference committee has drafted a final compromise. But before lawmakers vote on that package, a separate tax committee must agree on a plan to pay for the new program.

The tax conferees, who put off action on superfund while they spent the summer hammering out the income tax reform bill, traded new financing offers Wednesday, but they continued to be far apart on reaching a final solution.

Nevertheless, industry observers said Friday they remain optimistic that Congress

will pass a final bill and send it to the White House before adjournment.

At last week's meeting, the House agreed to a Senate proposal to include a new broad-based corporate tax in the financing package — something the House had previously rejected. But the major remaining dispute is over how much revenue should be raised by the new tax — a surcharge equal to a corporation's alternative minimum taxable income as computed under the tax reform bill.

The Senate proposed raising \$5 billion through the new tax, but the House counteroffer was to raise only \$2 billion.

The Senate plan also called for a \$500 million tax on the oil industry, \$1.4 billion on

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WASTE SITE: EPA says failure to find new funding could force program end.

## Grace Reaches Settlement Of Drinking Water Litigation

A potentially precedent-setting case involving industrial pollution of drinking water supplies was settled out of court last week by W.R. Grace & Co. and the 13 families in Woburn, Mass., who filed suit against the company four years ago.

The families alleged that Grace contaminated Woburn drinking water wells and was responsible for six leukemia deaths, as well as birth defects and illnesses.

Grace said it settled out of court to avoid the cost of litigation, insisting that the settlement should not be viewed as an admission of guilt. "We're still maintaining our innocence," a company spokesman said.

Details of the settlement were not disclosed, but it is believed that Grace agreed to pay a total of approximately \$8 million to the families — a fraction of the \$400 million the plaintiffs were said to be seeking originally.

Grace said the settlement costs and litigation expenses to date would be covered by insurance. The settlement must be less than what it would have cost to litigate the case in full, according to the company.

Grace said settlement talks had been initiated by plaintiffs, and that negotiations heated up after US District Court Judge William J. Skinner ordered a new trial for the first phase of the case, which had ended in defeat for Grace in late July (CMI 11/4/81, p. 3).

In the first phase, a six-member federal jury in Boston found that Grace "substantially contributed" to contamination of two wells in Woburn. The jury exonerated Beutels Company Inc., which was also charged with contaminating the wells.

Stanley Eiler, an attorney representing the

plaintiffs, said the "elements for a settlement were all there" prior to Judge Skinner's order for a retrial last week. "We weren't that concerned" about a new trial, Mr. Eiler added.

The retrial was ordered because of confusion surrounding answers to questions submitted to the jury during the first phase.

The jury was originally scheduled to reconvene this month for the second phase of the trial, during which jurors were to hear testimony as to whether the chemicals in question — trichloroethylene and tetrachloroethylene — were responsible for the deaths and illnesses.

Grace acknowledged that workers at its Cryovac Division in Woburn occasionally disposed of small amounts of the chemicals on the division's premises, but argued that they could not have migrated to the well sites before May 1979, when the wells were closed.

In the first phase of the trial, the jury accepted expert testimony to the contrary.

Mr. Eiler pointed out last week that the settlement represents a significant precedent because it shows that "individuals can bring these kinds of suits and prevail."

A legal precedent may have already been established in August, when a Federal court in Memphis determined that Velsicol Chemical Company contaminated ground water in Harlan County, Tenn., damaging residents' immune systems. The company was ordered to pay \$2 million to five representative plaintiffs, as well as \$7.5 million in punitive damages. Velsicol is expected to appeal the ruling.

## Carbide Will Boost Capacity For Butyraldehyde, Butanol

Union Carbide Corporation says it will complete a series of expansions by the end of the year to double annual capacity of butanol at its Texas City, Tex., facility from 200 million to 400 million pounds annually.

As a result of the expansion program begun two years ago, capacity for butyraldehyde, precursor of butanol in the low-pressure oxo process, will total 600 million pounds per year.

Carbide says an additional 20 percent expansion in butanol is planned to be completed at Texas City by 1988 to meet expected market needs.

Closure of the company's Ponce, Puerto Rico, complex at the beginning of 1985 took butanol capacity rated at about 270 million pounds per year.

The company is reported to have moved butyraldehyde raw material at times from Puerto Rico to Texas City to beef up its 120-million-pound 2-ethylhexanol unit there.

A Carbide spokesman said last week that some of the equipment of the Puerto Rico plant has been used in the current Texas City expansion. Annual projected output of some

820 million pounds of n-butanol this year is judged to be well within the industry's nameplate capacity of 1.1 billion pounds. However, availability of n-butylaldehyde has been the limiting factor.

More of the raw material has been going into 2-EH production since BASF Corporation closed its 130-million-pound alcohol unit at Montreal, Canada. The plant had been serving BASF's phthalate plasticizer operation at Kearney, N.J.

In addition, Shell Chemical Company has experienced scattered operating problems at its Deer Park, Tex., oxo alcohol facility. The company says it is now back to normal production after a two-week maintenance turnaround in May.

Unlike rhodium or cobalt hydrocarbonyl catalyst plants, the Shell facility uses a cobalt-phosphine catalyst system that produces butanols and 2-EH directly without isolating n-butylaldehyde intermediate.

Flexibility of the Shell plant is believed to be somewhat less, but altering the concentration of hydrogen to carbon monoxide in the synthesis gas feed is said to lend control over butanols to 2-EH ratio.

## Chemical Marketing Reporter

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SEPTEMBER 29, 1986

## USI Is at Top in PE With Enron Purchase

A major consolidation is taking place in the polyethylene business, as National Distillers & Chemical Corporation prepares to buy the chemicals division of Enron Corporation. The move will catapult National's petrochemicals unit, US Industrial Chemical Company, into market leadership in the US polyethylene business and will make the company perhaps the largest manufacturer of polyolefins in the world.

National Distillers says it will pay \$575 million cash and \$34 million in assumed debt for Enron Chemical, formerly known as Norchem and before that Northern Petrochemical.

The major assets of Enron Chemical are petrochemical plants at Morris, Ill., and Clinton, Iowa. To pay for the acquisition, National says it will sell its wine and spirits division that features brand names such as "Almaden" wine and "Old Grand Dad" bourbon. Analysts have estimated that this unit may fetch National up to \$500 million.

The Enron acquisition will add 1 billion pounds of low-density polyethylene capacity to USI's stable, 250 million pounds of linear low-density polyethylene, 350 million pounds of high-density polyethylene and 230 million pounds of polypropylene to USI's capacity totals.

The LDPE and PP capacity provides USI an entree into these two high-growth polymers. After the acquisition is completed, National will have the largest nameplate conventional LDPE capacity (1.8 billion pounds per year) in the US, and the second largest HDPE total (1.2 billion pounds) following Phillips Petroleum.

Commodity polyolefins are entering a period of relative prosperity after several difficult years, and several analysts note that now is a good time to expand operations in the field.

Operating rates for all thermoplastics are running above 90 percent, and feedstock prices are low. With the knowledge that little new capacity is due on line through the 1980's, several analysts have suggested that prices and profitability for polyolefins will soon rise sharply.

Patrik Baggett, vice-president of Chemi-

cal Marketing Associates, Inc., a Houston-based market research firm, calls USI's acquisition a "good deal." The commodity thermoplastics business is currently operating at high rates worldwide. Plastics haven't been real profitable in recent years, but they're close to turning the corner and becoming very profitable.

Robert Bauman of Chem-Systems, Inc., Tarrytown, N.Y., who acted as a consultant in the purchase, says the timing of the deal is "critical," since USI is expanding during an upswing in the plastics cycle. Not only is the company buying large quantities of plastics output, but it is also building a 220-million-pound LLDPE-HDPE swing plant in Port Arthur, Tex. which is due on line next year.

According to Mr. Bauman, not only are US plants running at high rates, but recent LLDPE capacity start-ups in Canada have already been absorbed in the market, as has Saudi Arabian material.

In addition, supply can't keep up with the demand.

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USI Polyolefin Capacity*			
	LDPE	LLDPE	PP
Tuscola, Ill.	170	—	—
La Porte, Tex.	455	—	550
Port Arthur, Tex.	190	—	310
Morris, Ill.	550	250	—
Clinton, Iowa	350	—	230
Total	1,815	250	1,210

Source: USI and CMR Chemical Profiles.  
\*Millions of pounds per year. In addition USI is building a 220-million-pound-per-year LLDPE-HDPE swing plant at Port Arthur, Tex., due on stream in late 1987. USI acquired the Port Arthur LDPE and HDPE facilities from Arco in early 1984. USI is purchasing the polyolefin assets at Morris and Clinton from Enron, formerly known as Norchem. Norchem bought the Clinton facility from Chemplex in January 1985. Norchem brought on stream the LLDPE capacity at Morris in late 1983. The Enron purchase will also supply USI with 1.7 billion pounds of ethylene capacity split between Morris and Clinton. 230-million pounds of annual ethylene oxide and 200 million pounds of ethylene glycol capacity at Morris and certain other assets.



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Dexter Barker, who has been elected to succeed Edward Donley as chairman of the board and chief executive officer of Air Products & Chemicals Inc. effective December 1.

### P&G Glycerine Nearly Doubling; Need Doubted

Procter & Gamble said last week that it plans to increase its glycerine refining capacity from 110 million pounds to almost 200 million pounds annually. The company would not put an exact date on the plan's completion but stated that the expansion would be a "multi-year process."

With two plants around the country, Procter & Gamble is the largest US producer of natural glycerine.

Observers greeted the announcement with surprise last week, with one producer saying, "I don't see a need for any new production with domestic demand for glycerine historically falling between 285 and 310 million pounds per year."

Total US capacity now stands at 370 million pounds annually for both synthetic and natural glycerine, while imports have averaged 40 million pounds during 1984 and 1985.

Procter & Gamble claims to be taking the

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### Commodities: Output Evolving To Efficient Few

The output of tonnage chemicals, such as chlorine, caustic soda, ethylene and sulfuric acid, will be concentrated in the hands of a few efficient producers by the year 2000. That's the opinion of Dr. Charles H. Kline, chairman and past-president of Charles H. Kline & Co.

In a talk before the American section of the Societe de Chimie Industrielle at the Chemists' Club in New York, Dr. Kline predicted that there would be, perhaps, no more than eight or so of these producers, and most of them would be operating on a global basis. Probing deeper into the make-up of the chemical industry during the next century, he sees a shakeout coming in specialty chemicals, with this segment of the marketplace dominated by the efficient manufacturers. Pointing out that there are over two dozen companies involved in carbon fibers today, he says he's convinced that two-thirds of them will be gone from the scene in the next 14 years.

Dr. Kline looks for more product-oriented

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## Oxy, Church & Dwight Form New Partnership

Occidental Petroleum Corporation and Church & Dwight Company, Inc., announced last week that they have signed a letter of intent to form a partnership to produce and market potassium carbonate and related products. The new partnership, Armand Products Company, will be equally owned.

The partnership will own and operate an existing 37,000-ton-per-year potassium carbonate plant in Muscle Shoals, Ala., that was recently acquired by Occidental from Diamond Shamrock Corporation. The facility is the only potassium carbonate plant in the US. The partnership will own and market existing potassium carbonate product lines.

Under the terms of the agreement, Occidental will receive 1,110,000 shares, representing approximately 5 percent of the outstanding common stock of Church & Dwight, plus approximately \$5.3 million in cash. The founding families and management of Church & Dwight will continue to own more than 50 percent of Church & Dwight's stock after this transition.

Upon completion of the transaction, which is expected within the next month, Dr. Armand Hammer, chairman and chief executive officer of Occidental, will be elected to the Church & Dwight board of directors. Church & Dwight has expressed a desire to

enter the potassium chemicals business for some time. Earlier this year (CMR, 2/10/88, pg. 3) Church & Dwight announced the signing of a letter of intent to enter a potassium chemical venture with Olin Corporation.

Since then, Olin has said it would convert up to half of its chloralkali facility at Niagara Falls, N.Y., to production of potassium hydroxide, the raw material for potassium carbonate (CMR, 7/7/88, pg. 7). That project, which will give Olin the capacity to produce 70,000 tons of potassium hydroxide, is scheduled for completion in the fourth quarter.

Church & Dwight now says it is still considering the Olin venture, but that the Occidental partnership will command most of its attention for the moment. Also on hold for the time being, says Church & Dwight, is a Canadian potassium hydroxide and potassium carbonate plant that the company has also considered.

Also involved in potassium carbonate at the Muscle Shoals plant is LCP Chemicals & Plastics Inc. Last year LCP entered a 10-year supply arrangement with Diamond Shamrock for a significant portion of Diamond's potassium carbonate output and, to a more limited extent, its potassium hydroxide output.

All involved say the LCP arrangement is not affected by either the purchase of Dis-

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### Pigment Breakthrough?

Heubach, Inc., a Newark, N.J., pigment maker, claims to have made a breakthrough in inorganic pigment technology that will significantly reduce dust hazards in the production of paint, ink and plastics without requiring formulation changes.

"Chroma yellow and molybdate orange make up the highest-value pigment types of the more than 60 pigment types offered to paint, plastic and ink makers," says Dave Waldron, Heubach's business manager for these pigments.

"As of this year we estimated one-third of all lead chromate volume in the United States has been replaced at a cost burden of \$1 billion to \$2 billion, which has been passed on to consumers in the last few years. By reducing inorganic pigment dusts by as much as 90 percent, the new technology may enable end users to avoid this huge cost burden," Mr. Waldron says.

"What is remarkable about this development is that it is achieved by altering the electrostatic charge on a pigment's surface and does not in any way require changes in formulations to which the pigment is used," says Bill Arnheim, Heubach's vice-president for R&D, who led the scientific staff in developing the new technology.

Extensive laboratory and field tests confirmed that gloss and color strength are not affected by the low-dust treatment, the company says.

The development of the improved pigments was accomplished much more rapidly because of the use of a new dust testing appliance developed by Heubach in Germany, the firm adds.

"Chroma yellow, zinc chromate, and molybdate chroma orange, thus far, are

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## Oil Price Decline Seen Leading To US Dependence on OPEC

Low oil prices have failed to help the US economy, while recent modest improvements in oil prices have generated "undue optimism in Houston and Washington" about the future of the US-based oil industry, Amoco Corporation's chief economist says.

Dr. Theodore R. Eck said in testimony before the Senate Committee on Energy & Natural Resources, "The energy-led recession in the Rocky Mountain and Southwestern states seems to have fully offset any benefits that may have accrued to the rest of the nation."

"Moreover, recent oil import volumes have increased and promise to continue to rise. The combination of high import dependency and sharply lower domestic investment for oil and gas exploration and production can scarcely be expected to boost US economic performance."

According to Dr. Eck, stabilization of crude oil prices at \$18 to \$19 per barrel could be the "worst case for much of the world."

He explains that this price range would be high enough to allow many Arab nations to live comfortably, while the US, Britain, Mexico, Egypt and Iran, and many other smaller producing countries would remain under severe financial pressure.

The Soviet Union would also face serious foreign-currency limitation strains that

could result in more aggressive political action in the Middle East, Dr. Eck says.

Assessing the future role of OPEC, Dr. Eck says, "The inescapable conclusion is that low crude oil prices (approximately \$16 to \$18 per barrel) will not permit the US to maintain the current levels of proven crude oil and natural gas reserves."

"If prices under \$20 persist for the near-term years, the decline in reserves in the US will accelerate very significantly from the already declining trend in the past 10 years. And a continuance of low oil prices will also not justify the levels of capital spending required to find large quantities of crude in the relatively high-cost areas of the world outside."

As a result, Dr. Eck says, "control of crude oil available for import into the industrialized countries will inevitably become more and more concentrated in Saudi Arabia, Kuwait, Iran, Iraq, and Abu Dhabi—the five low-cost producers which control 81 percent of the free world's proven oil reserves."

"If the leadership of the Middle East were to become less friendly to the West, we could face very unfavorable cost and supply conditions."

Dr. Eck says the government can help the petroleum industry by restraining from actions that would further worsen its financial abilities.

September 29, 1988

## Mutagen R&D Lack Hobbles US

Without the continued research and development of new technologies, the Federal government will continue to lack both the tools to evaluate risks from occupational and environmental exposures and the information to frame rational laws and regulations to protect people from mutagens, says a Congressional study.

According to the Office of Technology Assessment, heritable mutations are the most poorly understood of the known or suspected effects of exposures to chemicals and physical agents in the environment.

"Yet, Congress has passed laws requiring protection of the public from exposures that can cause these permanent changes in the genetic material which can be passed on to succeeding generations," says OTA.

"Continuing to rely on inadequate knowledge about the causes and effects of mutations could result in poorly-informed decisions about acceptable levels of exposure and the level of resources needed to provide protection from such exposures," adds the report.

OTA, the research arm of Congress, carried out the analysis at the request of the Senate Veterans Affairs Committee and the House Science & Technology Committee, which are charged with framing public health laws.

Among the laws that specifically require protection against the risk of mutations are Superfund and the Toxic Substances Control Act.

With few exceptions, current methods are clearly inadequate to determine whether exposures to environmental chemicals and radiation are important influences on the frequency of heritable mutations in the population, says OTA.

In human beings, specific causes of herita-

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## DES Lawsuit Seeks \$100 MM From Drug Firms

A New York woman has filed a \$100 million lawsuit against seven former manufacturers of DES (diethylstilbestrol), charging that the drug was responsible for her child being born with cerebral palsy. The woman's mother took the drug in 1954.

The suit is among the first to be filed on behalf of third-generation DES victims, and more are expected to follow under a New York State law, enacted this Summer, which allows certain toxic tort actions to be filed, even though the statute of limitations has expired.

Last month, three women filed DES suits totaling \$95 million one day after the new law was signed (CMR 8/4/88, pg. 12).

The latest suit charges that the seven companies were "careless and negligent" in the manufacture and marketing of DES, used mostly in the 1940's and 1950's to prevent miscarriages. DES was later linked to cancer in the daughters of women who took the drug.

The seven companies named in the suit are: Eli Lilly & Co., E.R. Squibb & Sons Inc., Abbott Laboratories, Upjohn Company, Merck & Co., Rexall Drug Company, and Winthrop Company (part of Sterling Drug).

The companies declined to comment on the suit last week, most saying it was against policy to discuss pending litigation. Lilly said it had not yet seen the complaint and would not comment until it did.

Winthrop spokesman Terry Kelley said, "Our brand of DES was never indicated with problems associated with pregnancy." He also said the company was not a major producer of the drug.

September 29, 1988

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## News Capsule

### LNG Charter Set

Shipment of liquefied natural gas from Indonesia to South Korea will commence next month under a 20-year supply agreement under which Pertamina, the Indonesian state oil company, will supply South Korea with 2 million tons of gas annually. The LNG carrier Golar Spirit, owned by Golar-Larsen, will carry the first cargo from Arun, Indonesia, to Peong Taek, South Korea.

### Plastics Plant Planned

Genpak Corporation, maker of foaming, carry-out containers and foam trays for the food industry, plans to build a new, \$5 million plant in Mecklenburg, N.C. Genpak will lease an existing 100,000-square-foot building to house the new operations. The plant and equipment will represent an investment of nearly \$5 million when fully operational, according to the Glens Falls, N.Y., company.

### Big Three Sale

Big Three Industries Inc. has agreed to sell all 8.3 million shares of common stock in Nowco Well Service Ltd. to two Canadian investment banking firms, Gordon Capital Corporation and Dominion Securities Ltd., both of Toronto. The holding represents 61.4 percent of Nowco, a worldwide supplier of acidizing, cementing, fracturing and stimulation services for oil and gas wells.

### Fatty Acids Study

Retail sales of omega-3 fatty acids will reach an estimated \$20 million this year, according to Eldib Engineering & Research Inc., which predicts that omega 3 fatty acids from fish oils will be the "next big craze" in the health-food market. The encapsulated fish oil products are easy to take and replace the need to include oily fish in the diet several times a week, Eldib observes.

### Owens-Corning Restructures

Owens-Corning Fiberglass Corporation has reorganized its operations into three units: construction products, industrial materials and international. As previously announced, the aerospace and strategic materials group will be sold. The company recently thwarted a takeover attempt by Wicor Companies.

### IMC Agrees to Sell

International Minerals & Chemical Corporation has agreed to sell its US gas and oil businesses to Wintershall Corporation, Denver, Colo. Wintershall is a subsidiary of Wintershall AG of Germany, part of the BASF Group. Included in the purchase is a gas pipeline network in Louisiana.

### J&J Enters Accord

Johnson & Johnson has signed a letter of intent to purchase Life Scan Inc., Mountain View, Calif. Life Scan manufactures and markets diagnostic tests that are used at home by diabetics to measure blood sugar levels. J&J's Ortho Pharmaceuticals units markets other diagnostic kits used in the home.

### Rhone-Poulenc Venture

May & Baker, a wholly-owned subsidiary of Rhone-Poulenc Group in the UK, is transferring its photochemicals operations to a joint venture with Champion Chemical Ltd. of Canada. May & Baker holds a 25 percent stake in the venture.

### Magnesium Venture Set

Norsk Hydro AS will go ahead with its \$80 million magnesium project at Binghamton, Quebec, Canada. Work is scheduled to begin in April, 1987, on the project which is sized to produce some 60,000 tons annually of magnesium, representing a 25 percent increase in the world's supply.



Thomas H. Kennedy, who has been named executive vice-president of Celanese Chemical Company, with responsibility for worldwide sales and marketing, as well as operations and technical functions.

## Oil Tax Bill Is Defeated In House Vote

House tax writers last week defeated a measure opposed by the chemical industry that would have imposed an excise tax on imported crude oil and refined petroleum products in an effort to help reduce the Federal deficit.

The House Ways & Means Committee, looking for revenue to include in a \$15.5 billion package of deficit-reduction measures, rejected the oil import fee proposal by Rep. Byron Dorgan (D-N.D.) on a 12-8 show of hands.

The proposal would have, in effect, set a \$22 base price for a barrel of imported oil, but it would not have applied to heating oil or products used in agriculture.

"We are in desperate need of money. This is one approach that yields some very significant revenue," said Rep. Dorgan, who estimated his amendment would raise \$14.8 billion in fiscal 1987.

The Reagan Administration, as well as the chemical industry, opposed the imposition of an oil import fee.

## McNeil Drug Is Targeted by Health Group

A consumer-advocate organization last week asked the Federal government to ban a new arthritis and pain-killing drug on grounds it can cause kidney damage.

In a letter to Food & Drug Administration Commissioner Frank Young, Dr. Sidney Wolfe, director of Public Citizen Health Research Group, said "Suprol" should be taken off the market as soon as possible.

Dr. Wolfe said the drug, manufactured by Johnson & Johnson's McNeil Pharmaceutical Division, has caused more than 100 reported cases of kidney damage, mostly in Arthritis patients. He claimed the actual number of patients suffering kidney damage from the drug, also known as suprofen, may be much higher.

Johnson & Johnson spokesman Robert Andrews denied the charge. He said there has been a change in kidney function, but it has been reversed by halting use of the drug.

"We know of no reason why removal of the drug from the market is appropriate as long as physicians have proper prescribing information," Mr. Andrews said.

## McKesson To Sell Its Distribution Unit

McKesson Corporation, San Francisco-based distributor and producer of industrial and consumer products, has reached an agreement to sell its chemical distribution operation — McKesson Chemical Company — in a three-step transaction for \$76 million in cash.

The ultimate buyer of McKesson Chemical will be Univar Corporation, which headquartered in Seattle, Wash., is a distributor of industrial chemicals in the US through its Van Waters & Rogers Division, and in Canada through a subsidiary, Van Waters & Rogers Ltd.

McKesson said that after the closing of the transaction, it plans to sell the two remaining components of its chemical group — McKesson Environmental Systems (a solvent recycler) and McKesson Environmental Services (a technical laboratory and consulting firm specializing in environmental audits).

In the sale of McKesson Chemical Company, first Pakhoed Holding NV, a Dutch company, will capitalize a US subsidiary with approximately \$26 million. Next, the subsidiary will acquire the assets, subject to certain liabilities, of McKesson Chemical for \$76 million.

Next, Pakhoed will exchange the stock of the subsidiary (representing, in effect, McKesson Chemical) for 3,053,000 shares of Univar, which will represent an approxi-

mately 35 percent ownership of Univar by Pakhoed.

The chemical group represented about 10 percent of McKesson Corporation's total corporate revenues and about 3 percent of its operating profit — \$6.3 billion and \$78 million, respectively, in the fiscal year ended March 31.

Thomas W. Field, Jr., McKesson's president and chief executive officer, said that these moves will complete the transition of McKesson from a highly diversified operation to a company focused on distribution services and consumer products. These include drugs, health and beauty aids, household goods, bottled water, alcoholic beverages and office supplies. Marketing is to retailers, health care providers and consumers, depending upon the products.

McKesson was originally a New York-based distributor of chemicals and liquor called McKesson & Robbins Incorporated, with a massive nationwide distribution system. In the 1960's, the company was acquired by Foremost Dairies, and the combined organization was named Foremost-McKesson. Later, the dairy business was sold, after the merged company had added many consumer and industrial lines to its business.

"We now serve some 120,000 retail establishments and health care providers, filling over 40,000 orders a day, and we are well on

Continued on Page 20

## Diazinon Hit by EPA

Environmental Protection Agency last week cancelled the use of the pesticide diazinon on golf courses and sod farms, based on data which show that exposure to the chemical applied on these sites results in "unreasonable risks" to birds.

Ciba-Geigy Corporation, the main US producer of the pesticide, plans to ask for a hearing on the EPA order before an administrative law judge.

The company said EPA ignored its efforts to resolve the agency's concerns on a scientific basis, and accused the agency of acting in an "inefficient, adversarial" manner.

A company spokesman said golf course and sod farm applications represent about 6 to 8 percent of Ciba-Geigy's diazi-

non business. Diazinon is also applied to home lawns, fruit and nut trees, vegetables and some field crops.

An estimated 512,000 pounds are used annually on golf courses and 60,000 pounds are used on sod farms.

EPA says it received reports of approximately 60 bird kills in 18 states in which diazinon was either confirmed or implicated as the primary cause. The kills involved 23 species of birds, including migratory and non-migratory waterfowl, songbirds, shore birds, wading birds and others.

Most of the reported bird mortalities were associated with large grassy open sites such as golf courses, which are preferred feeding sites.

## FOIA Limit Wins Approval; Drug, Chemical Protection Seen

Industry-backed legislation amending the Freedom of Information Act to establish new procedures when an FOIA request is made for confidential business information was approved by the House last week.

The proposal, offered by Rep. Glenn English (D-Okla.), was supported by chemical and pharmaceutical companies that believe present law makes them vulnerable to disclosure of trade secrets.

Public interest groups and others who frequently make FOIA requests unsuccessfully opposed the bill, contending it will significantly delay the release of information and could limit access to some business information completely.

"I want to emphasize that this legislation is strictly a procedures bill," Rep. English told lawmakers on the House floor. "It will not permit agencies to withhold any information currently made public. The bill only modifies the procedures used by agencies in making disclosure decisions."

Chemical Specialties Manufacturers Association says the bill provides companies with "fair and certain" protection and corrects "serious procedural ambiguities" in the current statute.

"If US businesses are to remain competitive in international markets, they need to be able to protect information concerning their

product developments, designs, forecasts and plans," says Jack Pulley, managing counsel of Dow Corning Corporation.

For small businesses, he adds, the need is especially critical since their success or failure depends on only a few products.

Under the new procedures, when an outside interest makes an FOIA request for information which has been designated as confidential by the business which submitted the information, the agency must notify the submitter to allow the business to object to disclosure.

An agency would be given five days to notify the submitter that an FOIA request has been made, and the submitter would be allowed up to 10 days to file objections. The agency then has 10 days to determine whether to comply with the request.

If an objection to disclosure has been made, the agency must wait 10 additional days before releasing the information. Under specified circumstances, these time limits could be shortened.

The agency would not have to notify the submitter regarding an FOIA request if the information was not designated as confidential; if the agency first determines that the request should be denied; if disclosure is required by law or regulation; if the information is already publicly available; if the information is already in the public domain; or if the information is not confidential, despite its designation.

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## OILS, FATS & WAXES

### Coconut Oil Market Stronger; Dealer Activity Boosts Pricing

Coconut oil is trading at some of the highest prices seen in two months. The strength of the market is considered to be the result of dealer activity, rather than a high level of consumer interest. Starting in late July, coconut oil began its latest plunge, falling steadily for about a month. The price reached a low of 12 1/2 cents in mid-August, and since then it has been slowly creeping back up.

In recent weeks, though, prices have undergone a noticeable upsurge. Sources attribute this largely to extensive short covering by dealers. One trader feels that the dealer buying was spurred by origin producers buying back some of their material. Subsequent short covering, he says, has sustained the rally.

Despite the brisk level of trade, interest among end-buyers remains low. "Most of the consumer interest is for forward positions; they don't need spot oil right now," says an industry source. He goes on to say that "consumers are just going to sit back and wait for the rally to end."

#### CONSUMER BUYING DOWN

Other traders agree that consumer buying is down. "Most big (end use) buyers are well covered; there is not a lot of activity going on out there," says one industry source.

Consumers seem confident that the firming in the market will prove temporary, and that coconut oil supplies will not disappear while they wait for prices to drop. Total US stocks of coconut oil at the beginning of August stood at 124,000 metric tons, according to Bureau of Census figures. This was down from the 125,000 ton figure recorded for the first of July.

At the same time, US imports soared from 36,400 tons in June to 64,000 tons in July, according to Foreign Agricultural Service. August import figures are not yet available.

This leap upward in imports reflected a need to replenish stocks in the US at a time when both dealers and end consumers were low on material, a source says.

As far as the probable duration of the firming trend is concerned, traders are unable to agree. One buyer feels that, although the market may not fall considerably from where it is now, the market is "as strong as it's likely to get," he says.

On the other hand, another dealer believes that a strong coconut oil market is likely to stay, at least for a while. "The coconut oil market has already bottomed out; the previ-

ous lows that we saw before are now historic," he asserts.

#### VEGETABLE OILS

**COTTONSEED OIL** — Traders have begun to see some strengthening in the cottonseed oil market, which is said to be following firming trends seen in world prices of coconut oil and palm oil.

Traders feel that the price has gotten as low as it is likely to get in the foreseeable future. "The cotton price has bottomed out, and now it's starting to firm," says an industry source. Buying demand has been rather high.

#### PRICES TRENDLINES

WEEK ENDING SEPT. 26, 1986

#### CHANGES/UP

Coconut oil, NY, 1c. per lb.  
Corn oil, Midwest, 2c. per lb.  
Cottonseed, 41% bulk, Memphis, 3c. per lb.  
Grease, white, choice, tanks, divd., NY, 1c. per lb.  
Grease, yellow maximum 10%, 1c. per lb.  
Lard, loose, bulk tanks, Chicago divd., 1c. per lb.  
Palm oil, NY, 1c. per lb.  
Peanut, 50% bulk, BE, 5c. per lb.  
Soybean, 44% bulk, Decatur, 3c. per lb.  
Soybean oil, Decatur, 7c. per lb.  
Tallow, inedible, fancy, tanks, divd., NY, 1c. per lb.  
Tallow, inedible, bleached, tanks, divd., NY, 1c. per lb.

#### CHANGES/DOWN

Cottonseed oil, Valley, 1c. per lb.  
Peanut oil, Southeast (restricted), 1c. per lb.

#### OILS, FATS INDEX

The Oils, Fats & Waxes Index reflects the prices of 11 representative materials in this sector and the quantity of each produced in 1985.

Sept. 26, 1986 ..... 81.59  
Sept. 19, 1986 ..... 78.47  
Aug. 29, 1986 ..... 83.06  
Sept. 27, 1985 ..... 83.26

Chemical Prices Start on Page 32

especially in export sales, sources say, while domestic buying remains hard to mouth.

Another highly relevant factor in the stronger cottonseed oil price is the promise of a reduced crop yield this year. "The crop is a lot less than we thought it would be," says a source, who cites insufficient rainfall in Texas as the main reason. Also, the "overall quality of what's out there will be a lot lower than last year's," according to another industry source.

**PEANUT OIL** — The peanut oil market is softening as buying interest remains low. The market has been weakening steadily over the past few weeks as consumers have become more confident that there will be no serious shortage of oil from the new crop.

"The new crop is currently being harvested, and we anticipate having peanuts for crushing within three to four weeks," says one industry observer, who cites this as a probable reason for the absence of customers at present. In the meantime, there is "plenty of oil available" now, says another industry observer.

**TALLOW** — The tallow price is still on the rise, fueled largely by spot interest and buying on positions through October. The short-term buying being done by dealers is said to be the result of good domestic demand, as well as covering of outstanding foreign sales.

The market is in the midst of a short supply situation whose cause is not readily known. "No one knows the reason for the short supply," says an industry source, who says that the contending theories of lower production and dealers withholding material have not been resolved.

The source says that buying interest is especially strong on the part of animal feed business, which is up considerably over last year's. Despite good demand and firm prices, though, offers remain hard to come by, according to industry sources.

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#### FRIDAY SPOT PRICES

MARKET CLOSE SEPT. 26, 1986

#### CRUDE VEGETABLE OILS

Coconut oil, NY ..... lb. .14 1/2  
Coconut oil, Pacific ..... lb. .14  
Corn oil, Midwest ..... lb. .19  
Cottonseed oil, Valley ..... lb. .14  
Lined oil, Minneapolis ..... lb. .28  
Palm oil, NY ..... lb. .12  
Peanut oil, Southeast (restricted) ..... lb. .27 1/2  
Soybean oil, Decatur ..... lb. .14

#### REFD. VEGETABLE OILS

Coconut oil, L.W., NY ..... lb. .18 1/4  
Corn, jumbo tanks ..... lb. .28 1/2  
Cottonseed oil, jumbo tanks, NY ..... lb. .24 1/4  
Peanut oil, jumbo tanks, NY ..... lb. .34 1/2  
Soybean oil, NY ..... lb. .16 1/2

#### OILMEALS

Cottonseed, 14% bulk, Memphis ..... ton \$130  
Lined, extracted, 34% bulk, Fargo ..... ton \$85  
Peanut, 50% bulk, BE, Alabama ..... ton \$105  
Soybean, unrefined, 44% bulk, Decatur ..... ton \$183.50

#### FATS & GREASES

Grease, white, choice, tanks, divd., NY ..... lb. .10 1/2  
Grease, yellow maximum 10%, 1c. tanks ..... lb. .15  
Lard, loose, bulk tanks, divd., Chicago ..... lb. .12  
Tallow, inedible, fancy, tanks, divd., NY ..... lb. .12  
Tallow, inedible, bleached, tanks, divd., NY ..... lb. .11 1/4

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## Chemical Finance

### Carbide Making Second Rights Payment of \$3.22

Union Carbide Corporation, Danbury, Conn., will distribute a second payment of \$3.22 per right on October 14, following the distribution of \$30 that the company made on Oct. 30. Another 85 cents may be distributed later, depending upon a court ruling. The distribution represents funds received from sale of most of the company's common operations.

### Fiscons Buying ARL for \$66 Million

Fiscons, a large drug and agricultural products concern headquartered in England, is expanding its scientific instruments business with an agreement to purchase Applied Research Laboratories (ARL), a U.S. company, for about \$66 million. ARL is a privately owned company with manufacturing plants in Switzerland and California.

### Natural Gas Demand Has Broad Potential

Demand for natural gas in the US could range between 19.2 trillion and 26.8 trillion cubic feet by the year 2000, depending on economic and regulatory factors, according to a study by the American Gas Association. The broad range reflects possibilities in energy use legislation, competitive market structures and many other factors, AGA said.

### Pharmacia Acquires Stake in Electro-Nucleonics

Pharmacia, the Swedish pharmaceutical and biotechnology group, has acquired 10 percent of the shares of Electro-Nucleonics Company in the US and will seek a large interest. Under a contract, Electro-Nucleonics also will have exclusive rights to distribute certain Pharmacia products in the US.

### Borg-Warner Lifts Dividend, Buys Shares

Directors of Borg-Warner Corporation, meeting at the company's Chilton subsidiary, Dallas, Tex., authorized the repurchase of up to 15 million shares of the company's common stock, with funds to be provided principally from a continuing restructuring of Borg-Warner's business. Directors also raised the dividend on the common stock by 1 cent per share to 25 cents. C.E. "Red" Johnson, president and CEO, noted that Chilton was acquired in June, and its York air conditioning subsidiary was spun off to shareholders.

### Laser Industries Offering Debentures

Laser Industries Ltd., New York, has commenced the public offering of \$20 million principal amount of 8 percent subordinated debentures due September 15, 2006, priced at 100 percent. The debentures will be convertible into the company's common shares at a conversion price of \$14.895 per share. Drexel Burnham Lambert Incorporated is the sole underwriter of the offering.

### USX Debt Is Placed on CreditWatch

The debt ratings of USX Corporation and two subsidiaries have been placed on Standard & Poor's CreditWatch with negative implications. The large steel and petroleum company is being pursued by aggressive investors, and is exploring various alternatives to merger that would provide comparable value to stockholders.

### Abbey Medical Bought From Baxter Travenol

National Patent Development Corporation and VenTech SA, a wholly owned subsidiary of First City Gold Corporation, a Canadian company quoted on the Alberta Stock Exchange, have completed their leveraged buyout of Abbey Medical Inc. from Baxter Travenol Laboratories, Inc. National Westminster Bank USA provided leveraged financing. The transaction was announced by Jerome L. Feldman, president and CEO of NPDC, and Lord Beaverbrook, chairman of VenTech.

Sixty Abbey Medical retail centers were acquired by the purchasers and are expected to generate sales in excess of \$75 million in 1988, bringing National Patent's total sales over \$250 million on an annualized basis.

National Patent's principal subsidiaries and divisions are International Hydration, Chelation, National Patent Dental Products and Interferon Sciences.

### Air Products Acquires Separex from Parker

Air Products & Chemicals, Inc., has acquired Separex Corporation from Parker Drilling Company, of Tulsa, Okla. Separex, which has been manufacturing membranes for gas separation since 1980, has its primary facility in Anaheim, Calif. "Separex" cellulose acetate membranes are used to recover hydrogen from refinery off-gas. Jim Soransen, director of technology and development for Air Products' membrane systems department, said that the acquisition is another step toward the company's objective of combining its gas processing and applications expertise with various technologies as "to offer the best approach for a customer's particular requirements."

### IMC Acquires Pitman-Moore from J&J

International Minerals & Chemical Corporation, Northbrook, Ill., has signed a letter of intent to acquire Pitman-Moore, a subsidiary of Johnson & Johnson. Pitman-Moore, headquartered in Washington Crossing, N.J., markets pharmaceuticals, biological, diagnostic and surgical products to the animal health market. Markets include all species of farm animals and household pets.

Donald E. Phillips, president of IMC's Animal Products Group, said the acquisition fits IMC's strategy of building its own animal products business. The Pitman-Moore acquisition broadens IMC's product line and provides access to new technology and new commercial opportunities, Mr. Phillips added.

The sale is subject to execution of a definitive agreement and approval for directors of both companies.

### Taiwan, Italy Have Strongest Outlook

Continued economic expansion appears ahead for Taiwan, Italy and four other major industrial nations, Conference Board reports in its International Economic Scoreboard. Taiwan continues to set the pace, with its leading index rising at an annual rate of 11 percent, followed by Italy, 11 percent; France, 8 percent; West Germany, 6 percent; and the US, 3 percent, and Canada, 2 percent.

The leading index in the United Kingdom is not advancing at all, while in Japan, the index is declining at an annualized rate of 1 percent, and in Australia, it is dropping by 1 percent, according to Edgar R. Fiedler, vice-president and economic counselor of the board.

In West Germany, prospects have significantly improved for the first time this year, Mr. Fiedler added.

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## AROMATIC ORGANICS

### Phenol Producers Schedule 2-Cent Advance for October

Phenol producers, citing high feedstock costs and poor profit margins, say they are raising market prices by 2 cents per pound, effective October 1. Producers believe that market demand is strong enough to support the increase.

Feedstock cumene costs, reflecting the benzene market, have risen from a 13.5-cents-per-pound level in mid-summer to 14.75 cents per pound. It is reported that some cumene suppliers are looking to get 16 cents per pound and higher for October.

One phenol producer says that phenol pricing in relation to cumene costs "is the worst it's been in recent memory." "Margins have suffered very badly the last six to seven months," he comments, a period marked by a mostly unsuccessful price initiative in July.

"Margins are very poor," says another producer, noting that when feedstock prices fell during the first half of the year, "everything was passed through." "The industry needs the 2-cent increase," he says.

#### US THE PRICE LEADER

The price movement was initiated by US Chemicals, which has been selling spot material at the higher price level this month. It is reported that there has not been a great deal of pre-buying activity.

While saying that the price increase is feedstock-driven, producers add that a healthy level of demand, improved from the first half of the year, should provide support for the higher price.

Output is said to have risen with stronger demand for bisphenol-A, a major end-market, and operating rates are estimated at 85 to 86 percent of capacity.

The phenolic resin market, which has not been strong most of the year, has shown some signs of picking up. Producers observe that demand typically falls off during the fourth quarter, but that the fourth quarter of 1985 was fairly strong.

Shifting trade patterns are seen as playing a significant role in the phenol market this year. Exports are flowing at a much heavier rate than last year, and imports have dwindled considerably.

"Imports are minor" this year, says a producer, with small amounts arriving on the East Coast from Spain, and in the Gulf from Mexico. Last year, Rumunio, Brazil, and Italy are said to have been more involved in the market. Through July, imports totaled 5.6 million pounds, down 38 million pounds from the 41.0 million pounds imported during the same period last year.

US exports, driven by For West demand, have grown to 100.5 million pounds through July from 80.3 million pounds during the

same period of 1985, a 40.2-million-pound increase. Producers say the weakening of the US dollar has been a major factor in the trade picture this year.

However, the restarting this month of a 60-million-pound-per-year plant near Montreal, which has been idled since the first of the year, is expected to have a significant impact on the market, since it is estimated

#### PRICES TRENDLINES

WEEK ENDING SEPT. 26, 1986

#### CHANGES/UP

None

#### CHANGES/DOWN

None

#### AROMATICS INDEX

The Aromatic Organics index reflects the prices of 14 representative materials in this sector and the quantity of each produced in 1985.

Sapt. 26, 1986 ..... 167.84  
Sapt. 19, 1986 ..... 167.84  
Aug. 29, 1986 ..... 167.84  
Sapt. 27, 1985 ..... 167.84

Chemical Prices Start on Page 32

that the US has been exporting phenol to Canada at a 40-million-pound-per-year rate.

It is believed that the producer has been building inventory this month, and that material will become available on the market around October 1. Seller aggressiveness and customer loyalty cannot be determined in advance, producers say, though they point out that, because the plant is old, its competitiveness may be restricted.

ITX — Spot benzene pricing weakened for the second consecutive week to an 81c to 82c per gallon range. The market had reached an 84c per gallon level around mid-month.

The decline has quieted talk of a possible upward adjustment in contract pricing for October 1. The present contract level is 85c per gallon.

Industry sources say that heavy buying activity during August and early September, when prices were rising, has resulted in a buildup of consumers' inventory levels.

Major end-market styrene is still advancing, but purchasers have not been active of late. It is expected that inventories will be sufficiently worked off for activity to pick up in early October.

Market sources report a shift in benzene

### AROMATIC ORGANIC IMPORTS: JULY

CENSUS BUREAU REPORTS ON THE TOP 24 AROMATICS.

	JULY	JUNE
	QUANTITY	QUANTITY
Alkylphenols.....lb.	281,022	72,400
Aniline.....lb.	23,033,825	17,115,844
Benzene.....gal.	294,502	187,183
Benzonitrile.....lb.	26,340,182	1,944,392
Cresols.....gal.	86,472	34,821
Cresols, o, m, p.....lb.	810,307	389,286
Cumene.....lb.	81,878,371	6,086,873
Cyclohexane.....lb.	4,780	6,186
Cyclohexanone.....lb.	114,840	44,858
Formic acid.....lb.	411,168	170,230
Maleic anhydride.....lb.	1,286,040	1,071,466
Maleimide.....lb.	496,988	383,107
Naphthalene.....lb.	832,773	60,784
Phenol.....lb.	1,068,446	210,285
Phthalic anhydride.....lb.	283,864	208,103
Pyridine.....lb.	21,906,478	2,651,562
Styrene monomer.....gal.	18,284,070	18,380,417
Toluene.....lb.	635,104	487,332
Val blue.....lb.	8,240,121	1,150,705
Xylene.....gal.	2,417,340	1,150,705
Xylenes.....lb.	11,028	23,584

\*Includes pitch of coal tar, bitumens, tar oil, etc.

## AROMATICS

trade patterns that should work to producers' benefit. During the first half of the year, substantial amounts of benzene were flowing into the US and providing some pressure on pricing.

Since the beginning of August, however, it is said that imports have lessened, a trend attributed in part to the weakening of the US dollar.

Spot toluene was quoted last week in a range of 68c to 89c per gallon, down from 71c to 73c per gallon the previous week. Sources cite weak gasoline pricing as being a factor in the decline. Spot xylene has been holding steady at 75c per gallon.

MELAMINE — Producers say that a decline in import pressure, coupled with fairly healthy domestic demand, has enabled pricing to hold firm in recent months.

Two overseas producers, one in Brazil and the other in Kuwait, were significant factors in the US market last year, but have not operated this year.

Although Saudi Arabian Fertilizer Co. has come on line in the meantime, "the Saudis have not filled the void," says one US producer, and the other comments that Saudi shipments "seem to be somewhat erratic." "I'm not sure they've established themselves," he adds.

Producers say they expect total imports this year to be at least 20 percent below 1985. Through July, imports were 11 million pounds, as compared with 15 million pounds last year, a decline of 28 percent.

Domestic producers attribute the lessening of import pressure in part to the weakening dollar. The US market has become less attractive to overseas producers, they say, and note that product pricing in the US is lower than in any other producing country. Producers say that, overall, the global market has nudged up this year, and that strong Far East demand has been a major factor.

Domestically, the two largest market segments, laminates and coatings, are said to be doing fairly well. The construction area has been performing "reasonably well," and the automotive area has been doing "reasonably well," although it has softened up a big recently, says one producer.

### GE Plastics Expands 'Utem' Resins Plant

General Electric has completed \$75 million worth of expansions at its Mt. Vernon, N.Y., "Utem" polyetherimide resin facility, the firm announced last week. The newly integrated manufacturing facility, which GE claims is the largest high-performance plastic facility in the US today, includes separate monomer production, polymerization, compounding and water treatment plants, as well as computerized processing and quality control, and air quality control facilities. The existing "Utem" resin facility will be maintained as a semiworks plant for research and development projects.

GE introduced the resin in 1982; it is said to provide high heat resistance, low smoke generation and excellent chemical resistance and electrical properties for use in aircraft, packaging, electrical and automotive applications.

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Uses: Raw material for glass, enamel, drugs, etc.  
Packing: According to weight

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## ALIPHATIC ORGANICS

### P&G Glycerine

Continued from Page 7

longer view and contends that "this sharp increase in P&G's capacity for refined glycerine supports our long-term commitment to grow in the refined glycerine business."

In fact, the market may now be ready for some increased domestic production. Shell Nederland Chemie BV has exited the glycerine market as of the second quarter this year. The company has closed its 25-million-pound-per-year synthetic glycerine facility and reportedly sent its last shipment of glycerine to the US as of July.

According to industry sources, this will reduce US imports on the order of 10 percent annually.

In addition, stronger pricing in Europe starting in the third quarter of this year and falling prices in the US has reduced profitability for exporters to the US and is expected to dry up what had been a surge in imports early this year. "The glycerine market has been weak this year," says one US producer, who asserts, "with a soft market imports will fall."

So far, in 1988 imports through July have expanded relative to last year by 11 million pounds with a total of 32.8 million pounds. But sources note that imports since the second quarter have "stabilized."

#### RAW MATERIAL PRICE DECLINE

Aiding the decline in pricing has been the decline in raw material coconut oil and tallow pricing. One year ago tallow was selling between 17 cents and 19 cents per pound. Now its market value is about 12 cents per pound. Also, tallow has seen a decline of about 35 cents per pound in the last year to its current level of 14 cents per pound.

Refined glycerine prices have dropped about 10 cents per pound in the same period, with current levels for 99.5 percent purity material as low as 75 cents per pound.

However, crude oil pricing has declined steeply during the year and may provide an incentive to synthetic glycerine producers, including Shell Chemical Company, with mothballed units to reassess production economics.

"With crude prices down, synthetic glycerine producers may consider restarting their operations," says one observer. He asserts that natural glycerine producers have to be prepared to compete with potential reentries by synthetic glycerine producers. At the moment, Dow Chemical with 110 million pounds of annual production capacity at Freeport Texas is the only manufacturer by synthetic process.

Producers using natural raw material have undergone significant process improvements according to Constantine Miserlis of Badger Engineers Inc., Cambridge Mass. In total, yield has been improved by 5 to 10 percent and purity has been enhanced to the

point were 90 to 95 percent of material produced attains 99.5 percent purity compared to only 75 percent of output reaching this level five years ago. Mr. Miserlis adds that the most significant improvement has been a 50 percent reduction in energy consumption.

#### PRICES TRENDLINES

WEEK ENDING SEPT. 26, 1988

##### CHANGES/UP

None

##### CHANGES/DOWN

None

##### ALIPHATICS INDEX

The Aliphatic Organics Index reflects the prices of 20 representative materials in this sector and the quantity of each produced in 1985.

Sept. 28, 1988 ..... 222.80  
Sept. 17, 1988 ..... 222.80  
Aug. 29, 1988 ..... 222.80  
Sept. 27, 1988 ..... 203.80

Chemical Prices Start on Page 32

In the average natural production facility over the last five years.

Procter & Gamble has "rebuilt all their plants in the last five years," according to one competitor who adds that "just about everybody has revamped their distillation capacity."

Recent activity in facility improvement has led to speculation that most of Procter & Gamble's announced capacity increase may already be in place. A Procter & Gamble spokeswoman maintained, however, that the new capacity remains to be implemented.

**METHYLENE CHLORIDE** — Atochem Inc. will follow other major producers of methylene chloride with a price increase of 2c. per pound scheduled for October 1, or as contracts permit. The company says that the increase is needed to "improve margins for methylene chloride which have been severely depressed in recent times as a result of declining market prices caused by a weakening in demand for this chemical." Other producers who have announced similar increases are Occidental Chemical, LCP Chemicals and Plastics, Dow Chemical Company and Vulcan Materials Company.

**SILANES** — Dynnmit Nobel Chemicals, Silanes-Silicons Group says it will increase the price of its organo-functional silanes by 1 to 6 percent on November 1. Also the company says it is moving from a delivered pricing basis to free on board pricing at that time. According to Barry Arkise, general manager of the Silanes-Silicons Group, strong

### ALIPHATIC ORGANIC IMPORTS: JULY

BUREAU OF CENSUS FIGURES FOR THE KEY ALIPHATICS

	QUANTITY	VALUE	QUANTITY	VALUE
	JULY		JUNE	
Acetic acid	79,884	41,764	8,894,808	878,200
Acetic anhydride	86,506	5,833		
Butadiene	66,261,243	9,836,827	24,062,281	2,867,071
Butanol	2,014	4,716		
Chloroacetic acid	8,571,826	1,181,887	2,388,446	761,938
Ethanol (industrial)	4,818,322	3,677,184	5,430,511	4,788,888
Ethanolamines	188,221	44,099	182,889	148,461
Ethyl acetate	4	1,438	8,266	8,361
Ethylene glycol	48,278,708	8,798,814	32,886,114	4,682,048
Formic acid	182,900	41,492	1,161,421	196,888
Glyoxal	2,471,486	782,033	188,181	88,988
Hexamethylenetetramine	119,826	34,428	70,133	23,498
Lactic acid	1,011,811	986,910	18,418,680	2,893,178
Methanol	3,801,345	607,820	1,388,718	231,487
Methylene chloride	1,967,724	342,027	2,182,724	788,046
Methyl ethyl ketone	38,291	44,142	38,700	44,991
Oxetane	1,389,996	896,980	1,844,113	384,048
Oxalic acid	1,441,932	807,878	934,768	833,374
Perchloroethylene	26,188,267	4,880,878	6,877,868	1,008,141
Propylene oxide	2,302,780	783,807	1,777,882	896,847
Sulfonic acid	791,900	1,967,848		
Tetrahydrofuran	5,880,733	914,518	1,887,809	274,448
Vinyl acetate, unpolymerized	279,587	484,888	220,984	588,888
Vinyl pyrrolidone				

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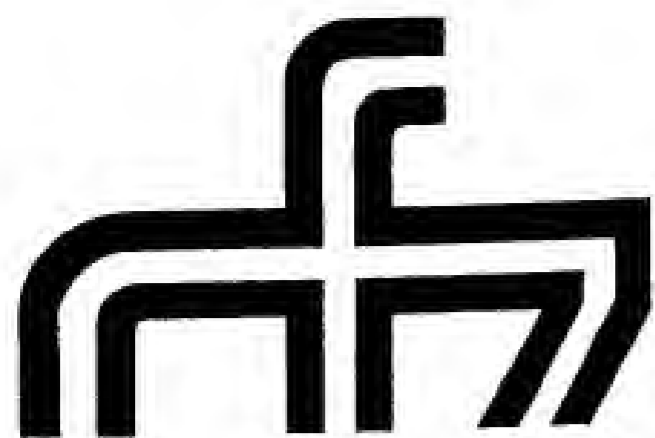
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### ALIPHATICS

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According to Mr. Arkles, the domestic organosilane business is currently valued at \$50 million to \$70 million in sales annually. The materials are used in coupling agents and chemical intermediates.

### Pfizer Cites Kahn For Diabetes Work

C. Ronald Kahn of the Joslin Diabetes Center in Boston has been named the sixth recipient of the Pfizer Biomedical Research Award, which will provide unrestricted research funding of \$500,000 over the next five years.

Kahn is a Mary K. Iacocca Professor at the Harvard Medical School, and is research director of the Joslin Diabetes Center, which he joined in 1981. His research efforts concern the potential causes of Type II, or noninsulin-dependent, diabetes.

Announcement of the award was made by Barry M. Bloom, president of Pfizer Central Research, who said "the award will support Dr. Kahn's work in understanding the causes and consequences of diabetes."

Research led by Kahn at the center is exploring insulin/insulin receptor interactions, and is uncovering information concerning Type II diabetes.

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### DRUGS & FINE CHEMICALS

#### Penicillin, Ampicillin Prices Firm As Cephalosporin Demand Rises

Penicillin prices have firmed throughout 1988 in a continuation of a trend that began near the end of third quarter 1985. However, observers say that pricing, which has risen mainly because of tight supply, could level off soon.

"The market has calmed down considerably," claims one source. He says that prices are still on the rise, but doesn't think they will continue to increase at the rapid pace of 1985's first three quarters. This source estimates price to be about \$25 per billion units (bu), while another industry observer claims pricing is higher, between \$25 and \$30 per bu. "It's hard to buy (penicillin) at \$26 or \$27," he says.

These prices are about twice the \$12 to \$15 per bu prices of mid-1985. The falling dollar is said to have had something to do with the situation, because some penicillin is imported. However, tightening supply as a result of increased demand is generally agreed to be the major market catalyst.

"Demand hasn't really slackened off," claims an observer, who also says that for a short time this year, "demand couldn't be satisfied." Some players cite the semi-synthetic penicillin derivative cephalosporins as leading the demand surge.

During the penicillin slump of 1984 and part of 1985, some penicillin players became involved in that segment of the market, where opportunities were perceived as being greater. As crude penicillin G salts were used more for this purpose supply lessened, because much penicillin G raw material is needed. Other factors which have reportedly increased demand are a booming animal penicillin market, a desire to contain medical costs by using relatively inexpensive penicillin, and some new export opportunities.

**PRODUCERS PUSHING EXPORTS**  
Despite the tightness, supply is not so low as to cause customers to go without penicillin for lengthy periods of time. "No," says one source, "we're careful about accepting orders," because of the tightness. However, it is reported that inventories are not large.

Exports are slightly down through July, but it's noted that domestic producers are strongly seeking to beef up that market segment. Through July, 27.8 million pounds of penicillin G salt were exported, including more than 15 million pounds in July. Through July 1988, 29.5 million pounds were exported.

Among the new export opportunities added to above is Bulgaria. While no penicillin G salts were exported to Bulgaria through July 1988, more than 12 million pounds have been sent to the country through July 1988, making Bulgaria the leading importer of US material, importing nearly three times that of the second largest purchaser, Sweden. In July 1988 alone, Bulgaria imported 9.8 million pounds of the G salts. India and Taiwan are increasing imports

as well. Only Mexico has substantially reduced its imports of penicillin from the US. Through July, Mexico had imported less than 500,000 pounds from the US. Last year, Mexican imports totalled more than 18 million pounds.

Ampicillin is also suffering from tight supply, and a source complains, "there's no

### PRICES TRENDLINES

WEEK ENDING SEPT. 26, 1988

#### CHANGES/UP

None

#### CHANGES/DOWN

None

#### DRUGS INDEX

The Drugs & Fine Chemicals index reflects the prices of 10 representative materials in this sector and the quantity of each produced in 1985.

Sept. 26, 1988	211.16
Sept. 18, 1988	211.16
Aug. 29, 1988	211.16
Sept. 27, 1985	211.16

Chemical Prices Start on Page 32

change in sight." Cephalosporin demand is said to be contributing to this, because it is diverting a lot of material. Also, the price of the precursor 6-APA is high, which makes the conversion to ampicillin unprofitable.

Ampicillin prices are estimated between \$85 and \$100 per kilogram, up from between \$78 and \$83 per kilogram at the beginning of 1988. The precursor's price is about \$90 per kilogram, or nearly the same as ampicillin. Ampicillin exports are down considerably, to less than 1.6 million pounds through July, down from 2.2 million pounds through July 1985.

**HFCs** — High fructose corn syrup producers say prices rose all Summer and reached higher levels than in recent peak seasons. Now, as the slow season approaches, prices should begin to soften.

"It was a very firm market this Summer," sums up one producer. "Prices were higher in the third quarter than in previous years....All in all, pricing was higher from a margin standpoint, largely because of supply."

Supply was considered tight throughout the season, because of an increased beverage requirement. This hasn't led to capacity increases, although one producer comments that some suppliers may deplete next Summer, in order to produce more HFCs without having to expand capacity.

Current pricing, according to one producer willing to quote prices, is as follows on a 100-pound basis: For 42 percent HFCs on a wet basis, \$12.80 to \$13.30 less two percent f.o.b. For 53 percent HFCs on a dry basis,

### BOTANICAL DRUG IMPORTS: JULY

CENSUS BUREAU REPORTS ON SELECTIVE BOTANICAL DRUGS.

	QUANTITY	JULY VALUE	JUNE QUANTITY	JUNE VALUE
Age	118,242	1,097,358	125,198	718,390
Balsams, nat. expt.	16,084	72,388	23,085	122,218
Net. glycer.	43,343	118,852		
Net. oil	3,307	18,272		
Crude animal glands, organs and parts	40,928	85,401	109,085	128,023
Ginseng roots	3,531	194,488	3,024	151,244
Ginseng, adv.	14,178	287,788	27,430	247,155
Ginsenosides	20,453	489,183	2,211	44,081
Quin. Querc.	882,704	1,075,989	1,082,790	1,278,340
Quin. Querc., nat.	2,893,428	6,782,280	3,282,241	7,812,521
Quin. Quercet. Balm.	388,175	2,182,503	850,738	3,586,028
Quin. Quercet. Balm., nat.	181,884	147,528	221,732	181,257
Quin. Quercet. Balm., nat.	232	6,898	20,873	516,194
Licorice root, nat.	8,308	4,484	6,822,482	1,685,790
Natural crude drugs, bit. other animal secretions	613,880	4,248,730	688,785	1,731,000
Natural crude drugs, nat.	12,484	40,310	3,593	7,593
Natural adv. drugs, animal origin, nat.	338,591	1,775,571	371,789	1,827,759
Natural adv. drugs, nat.	288,282	1,066,863	484,401	1,887,883
Poppy straw extract				
Pyrium seed husks	867,071	844,740	867,285	814,710



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## DRUGS & FINE CHEMS

the price is between \$19.85 and \$20.50 less two percent f.o.b.

HFCS contracts are currently being examined by the Commodities Futures Trading Commission, the governmental regulatory body. A spokesman for the Minneapolis Grain Exchange says final approval of the contracts should come in about two or three months. He says the Commission has been studying the contracts for eight or nine months, and that approval or disapproval generally takes between 7 and 18 months.

**KOLA NUTS** — The price of kola nuts is between 50c. and 53c. per pound, according to a major importer. This represents a slight firming from the beginning of the year, and is attributed to rising costs, such as ocean freight expenses.

Despite the higher price, one source says "we have few customers" because of slackening demand. According to his estimates, demand has dipped about 10 percent since last year, and about 20 percent from two years ago.

No definitive explanation is given for the decrease in demand, although the source comments that kola extract cannot be used in increasingly popular caffeine-free soft drinks, and adds that there may be a tendency for diet soft drink manufacturers to shy from its use.

Because of the demand situation, supply is considered plentiful. Most of the kola nuts come from Africa, but a source says "there's plenty in Jamaica this year, too."

**VITAMIN E** — BASF Corporation recently published the results of two studies about tocopheryl nicotinate (vitamin E nicotinate) as a vasodilator (dilator of blood vessels).

According to BASF, the results of both tests indicate that tocopheryl nicotinate beats burns as well as methyl nicotinate, but without the same degree of redness or hot spots.

Tests were conducted measuring the subjects' blood flow. The greater the blood flow, the more likely that redness, or a hot spot, will occur. The first study involved five subjects, whose blood flow was assessed after their skin was heated with a metal plate equipped with a heater coil. Tested were tocopheryl at a 0.5 percent concentration, mixed with sunflower oil; methyl nicotinate at a one percent concentration, mixed with sunflower oil; and tocopheryl nicotinate at a two percent concentration, with no sunflower oil.

BASF says that 0.5 percent tocopheryl nicotinate with sunflower oil increased blood

flow by 13.8 percent, while the one percent methyl nicotinate with sunflower oil increased blood flow by 20.13 percent.

BASF's spokesman continues that even the tocopheryl nicotinate without sunflower oil, at a two percent concentration, only increased blood flow by 17.58 percent.

## Pigment Dust

Continued from Page 7

the only pigments that have undergone the new electrostat process," says Dr. Wriede. "Plans call for the gradual expansion of the list of commercially available treated products."

Eventually, the company says treated products will include the organic pigments that Henkel has been marketing since the company purchased the facilities and colorant line of E.I. du Pont de Nemours Co. two years ago.

"We expect the low-dust development to reverse the trend away from chromate pigments that has resulted from the need to meet OSHA dust restrictions," says Mr. Wiedon. "The trend has been toward the use of organic replacements, which have been considerably more costly and generally less satisfactory in performance."

For the production of the new low-dust pigments an expansion/modernization of Heubach, Inc.'s inorganic pigment division has been completed and is on stream. The modernization included the installation of the "Electrostat" unit, completion of a 20-million-gallon-per-day waste water treatment facility, along with a 20-percent increase in capacity for chrome yellow and molybdate orange pigments.

## McKesson

Continued from Page 9

the way to becoming an integrated nationwide distributor of a broad range of nondurable products and related services for people," Mr. Field commented.

Univar has agreed, upon completion of the transaction, to offer employment to all of the employees of McKesson Chemical. As required by law, employees covered by collective bargaining agreements will have both their employment offers and special pay arrangements controlled by such agreements, a spokesman for McKesson said.

The transaction remains subject to review by the Federal Trade Commission under provisions of the Hart-Scott-Rodino Antitrust Improvements Act.

McKesson Chemical has operations in 35 states of the Continental U.S.

The largest competitor of the merged company in chemical distribution will be Ashland Chemical Company.

## Leaded Gas Banking Not Working, Dingell Says

Environmental Protection Agency's program for banking lead "may not be providing the benefits it was intended to achieve," says Rep. John Dingell (D-Mich.).

The program was initiated by the agency to lower the cost burden and provide flexibility for the gasoline industry in meeting more stringent standards for the lead content of gasoline.

In releasing a report by the General Accounting Office, Rep. Dingell says the failures appear to result from "insufficient and unreliable reporting practices, as well as in explicitly lax enforcement by EPA."

The report concludes a lengthy investigation by GAO which was initiated at the request of the House Energy and Commerce subcommittee on investigations and oversight, chaired by Mr. Dingell.

In a letter to EPA Administrator Lee M. Thomas, Rep. Dingell says "the program appears to be understaffed and poorly planned," and suggests that "with the program half over, EPA must catch up" in order to carry out the program's objectives and meet its obligations under the 1988 farm bill to monitor the actual lead content needed for farm machinery.

In March 1986, EPA issued a regulation significantly lowering the allowable lead content of gasoline which was aimed at reducing vehicular lead emissions into the atmosphere. EPA estimated that such a reduction would decrease the incidence of cardiovascular diseases, reduce automotive maintenance costs, and increase automobile fuel economy.

In order to ease the new financial burden carried by refiners and importers of leaded gas and to facilitate their transition to more stringent standards, EPA established a three-year "banking" program.

Under the program, producers and refiners that sold leaded gasoline in 1985 at a lower concentration than the required stand-

ard could "bank" or obtain a form of credit for their unused lead rights. The refiners could then opt to use them at a later date or sell their rights or credits to other program participants who produced or sold leaded gas in excess of the new standard.

EPA's goal was to reduce concentrations of lead in the atmosphere without placing undue stress on any one refiner. The collecting or using of such rights is to be completed by the end of 1987.

According to GAO, the banking program has attracted a significant number of participants, and as of June 18, 1986, accumulated about 9 billion grams of lead "rights."

Under EPA's regulations, program participants are required to submit quarterly reports to EPA detailing, among other items, the total number of gallons of leaded gasoline produced and the average lead content of each gallon produced.

The reports must also cover the refiners' "banking transactions," such as the number of rights or credits accumulated and the amount transferred. EPA is responsible for overseeing the reporting process and enforcing violations against those who do not meet program requirements.

However, as of June 1986, GAO found that "EPA had not completed processing and reviewing reports for the first year of the program." Even though the period to claim lead rights ended last December, "EPA has no firm data on the balance of lead rights available for use in calendar years 1986 and 1987," according to the report.

The GAO also said that refiners' reports are replete with inaccuracies and discrepancies which "may have resulted in the use or transfer of invalid rights" and that the agency's failure to check or verify reports may lead to EPA reliance on incorrect data. This could result in the release of unlawful levels of lead into the atmosphere.

Even though GAO found several violations of the regulations, no enforcement actions had been taken at EPA.

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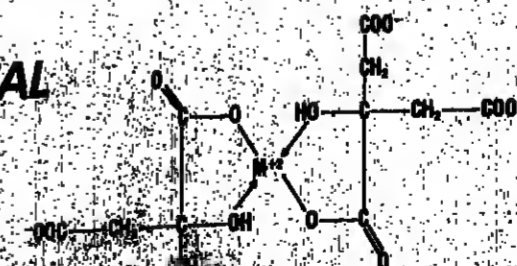
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## Oil and Products

annually. Lower prices will exert the largest impact on residual fuel oil demand, which will nearly double by the turn of the century. U.S. crude oil production will fall 2.5 percent a year, from 8.9 MMBD in 1985 to 8.0 MMBD in 2000, and natural gas demand will decline in the near term and stabilize at lower levels within the next few years.

Overall U.S. energy demand will grow at a rate of 1 percent a year. Oil will supply more than half the increase; coal and nuclear will supply the rest.

In the year 2000, oil will account for 43 percent of total U.S. energy demand, compared with 42 percent in 1985. Natural gas will account for 19 percent, versus 24 percent in 1985.

On a free-world basis, oil demand will grow just over 1 percent a year through 2000. Oil will supply 42 percent of total energy requirements in 2000, compared with 48 percent in 1985. Oil consumption will rise to 53 MMBD in 2000, up from 46 MMBD in 1985.

Gasoline demand over the period is expected to rise by 1.5 MMBD. Demand for middle distillates — kerosene and diesel — will be the fastest growing. The share of world energy supplied by natural gas will remain constant at about 18 percent.

### GROWING DEPENDENCE

Global dependence on OPEC oil will grow dramatically, says the report. Non-OPEC crude oil production will fall from 22.5 MMBD in 1985 to 18.5 MMBD in 2000. This trend will not be reversed by the anticipated rapid price rises in the 1990s. Exports from the Communist Bloc will end by the mid-1990s, and the region is likely to be a net importer by 2000.

Steady demand growth and the decline in OPEC oil supplies will lead to rapidly growing dependence on OPEC, whose share of world oil supply is expected to reach 60 percent by 2000, compared with 38 percent in 1985.

"In the past, direct government intervention in energy markets has led to economic distortions and inhibited attainment of a secure domestic supply of energy," the study points out. "Therefore, initiatives such as imposition of import fees on crude oil and petroleum products should be avoided."

The most direct method of improving energy security is to develop reserve capacity that can replace disrupted supplies, the report states. It recommends filling the Strategic Petroleum Reserve to the targeted level of 750 million barrels as quickly as fiscally responsible, and encouraging U.S. allies to develop similar petroleum inventory policies.

The study advocates local, state and federal tax policies that do not discourage investment in the development of domestic an-

ergy reserves. Among other changes, it recommends repeal of the windfall profit tax. The tax currently collects no revenue but still imposes an accounting burden on the oil industry.

## Commodity Output

Continued from Page 7

companies, and he thinks that CPI firms will shift from marketing individual chemicals to selling entire systems.

Chemical and chemical engineering will be redefined, he believes, so that, by the next century, CPI companies will be doing a lot of things that are not strictly chemical, as viewed by today's standards.

He also expects that there will be a new cycle of chemical innovation, and that there will be more chemical product lines, but that they will be smaller in volume. Finally, he suggests that higher profits will return to the industry.

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## Liability Rule Won't Change

Advocates of a uniform Federal product liability law gained a symbolic victory in the Senate Thursday night, but actual reform will have to wait at least another year.

After voting 84-13 in favor of considering a business-backed plan sponsored by Sen. Robert Kasten (R-Wis.), the legislation was pulled off the floor by Majority Leader Robert Dole (R-Kan.), in the face of a lengthy filibuster by opponents.

Noting that Congress intends to adjourn for the year October 3, Sen. Dole said the Senate did not have time for a long debate on the bill, which was designed to curb the skyrocketing cost of product liability insurance by limiting lawsuits against manufacturers.

Industry and insurance groups have been seeking such legislation, declaring that a crisis has been brought on by a glut of lawsuits and unreasonably high jury awards.

Trial lawyers oppose a Federal role in what has for decades been a state regulated issue. They say spiraling premiums were brought about by overly ambitious policy sales by the industry during the 1970s.

A revised proposal offered by Sen. Kasten last week dropped the controversial \$250,000 cap on awards for pain and suffering contained in earlier legislation in an attempt to gain more widespread support.

Both proposals would encourage out-of-court settlements and penalize lawyers for frivolous complaints. They would also make it more difficult to sue manufacturers for punitive damages, and ensure that manufacturers could not be punished for following Federal laws.

The Reagan Administration supported the effort to reform product liability law, as well

as a host of business groups including Chemical Manufacturers Association, US Chamber of Commerce, National Association of Manufacturers and the Business Roundtable.

## Superfund Tax

Continued from Page 3

chemical feedstocks, and \$1 billion from general revenues. The balance would come from interest and recoveries from parties held responsible for creating superfund dump sites.

In addition to a \$2 billion broad-based corporate tax, the House plan included the \$1.4 billion levy on chemical feedstocks, a \$2.6 billion tax on petroleum, \$1 billion in waste-end taxes, plus contributions from interest, recoveries and general revenues.

Two oil-state Senators — Russell Long (D-La.) and Lloyd Bentsen (D-Tex.), vowed to fight the House's proposal for heavy taxes on the oil industry.

"You aren't going to make any money from them once they're gone," Sen. Long said, warning that further financial pressure might force more oil companies out of business.

Sen. Bentsen added that if the committee votes to significantly boost taxes on the oil industry, he would try to defeat the superfund conference report on the Senate floor.

"I will fight the reauthorization unless we get a more equitable distribution" of the taxes, he warned.

The all-but-certain inclusion of a broad-based tax raises another potential problem — the threat of a presidential veto. Treasury Secretary James Baker has said he will recommend that President Reagan veto any bill containing either a broad corporate tax or a substantial increase in taxes on oil and feedstock chemicals.

If the reauthorization bill is not passed by October 1, EPA's Mr. Thomas said he would begin sending 30-day termination notices to superfund contractors.

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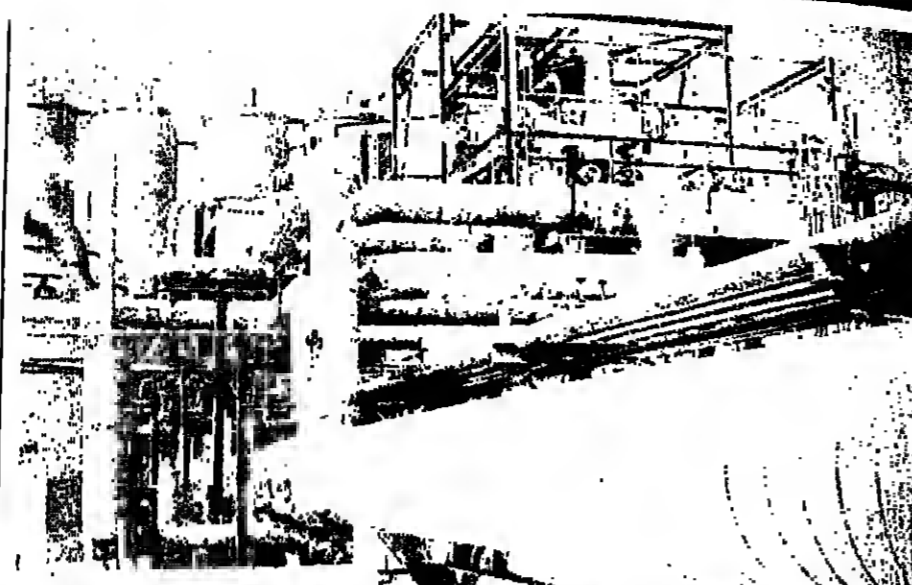
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**USI POLYETHYLENE IN THE GULF:** The company's combined Texas operations are capable of buying 1.8 to 1.9 billion pounds of ethylene per year. Shown here is a high density polyethylene unit at La Porte, Tex. Capacity for HDPE at La Porte is rated at 550 million pounds. USI has 310 million pounds of HDPE capacity at Port Arthur, Tex.

### USI at the Top

Continued from Page 3

growing Asian market. After a year's hiatus, Mr. Bauman predicts that China will again import large quantities of polyethylene next year.

USI itself has suggested that supplies of LDPE and HDPE will fall short of projected demand by the early 1990's. The company says that the two resins will each grow 9 percent annually between now and 1992.

Without capacity additions, the company has forecast that shortages of LDPE and HDPE may crop up by 1988, and that capacity may fall 30 percent below projected demand by 1992.

Interestingly, USI projects that demand for conventional LDPE, the product in which it will hold a truly dominant position once the Enron acquisition is completed, will remain static at 5 billion to 5.2 billion pounds between now and 1992.

However, Mr. Bauman points out that while demand for LDPE will remain flat, so will capacity, and operating rates are already over 90 percent. And, he suggests operating rates will further improve next decade as some older LDPE reactors are closed down.

In addition, Mr. Bauman notes that while LDPE units may be more expensive to operate than newer LLDPE plants, many are fully depreciated. Also, specialty grades of LDPE can only be produced in conventional reactors.

He says conventional high-pressure product will retain its market niche, and while large amounts of product will be displaced by LLDPE, large quantities of material will also be required to blend with LLDPE.

Mr. Baggett also notes that LDPE currently fetches a 2-cent-per-pound premium over LLDPE. So while LDPE may not appear to be a growth industry, observers point out that it can still be very profitable for USI.

Mr. Bauman says USI will gain several additional benefits from the Enron purchase. One is increased operational efficiency that can be gained from the combination. He says the longer product runs provided by combining the operations will reduce the output of off-specification material, while improving the quality of the product.

He also notes that USI will acquire a large quantity of ethylene capacity from Enron. The company has 1.7 billion pounds of ethylene capacity split between Clinton and Morris, and this total will improve self-sufficiency.

However, CMAI's Mr. Baggett says USI will remain the largest purchaser of ethylene in the U.S. The Tuscola, Ill. complex, with a

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400-million pound ethylene cracker has enough of the olefin under normal circumstances, Mr. Baggett notes. But when the 98-million-gallon-per-year synthetic ethanol plant located there is running full out a 50-million pound ethylene deficit results. Mr. Baggett also estimates that Enron's Clinton plant is a net consumer of ethylene. If the LDPE and HDPE unit are running at capacity, following the installation of the "Unipol" LDPE unit at Morris in 1994, that facility also fell into an ethylene deficit situation. The two Enron plants could require up to 100-million pounds of ethylene a year beyond what they make, he says.

USI's Gulf Coast operations at La Porte and Port Arthur, Tex. will continue to be enormous buyers of ethylene, Mr. Baggett says. The two facilities are capable of buying 1.8 billion to 1.9 billion pounds of ethylene per year, he says.

A major benefit of the Enron acquisition, according to Mr. Bauman, is USI's entrance into the polypropylene market through Enron's 230-million-pound PP plant in Morris. Enron also owns an oriented PP film plant in Streamwood, Ill. that Mr. Bauman calls a "standalone money maker."

While the Morris PP plant is not big, Mr. Bauman notes that 50 to 75 percent of the plant's output is copolymer material which carries a 9-to-10-cent-per-pound price premium over standard homopolymer. Polypropylene also enjoys the lowest raw material costs and highest selling prices among all polyolefins, he adds.

The Enron purchase also includes the company's ethylene oxide/ethylene glycol capac-

ity at Morris, a product line that some analysts question whether USI will retain.

In August, Enron sold its branded products group, featuring "Peak" antifreeze to Old World Trading Company, Des Plaines, Ill. The product group consists mainly of EG-based antifreeze and coolant products for both retail and industrial sales.

As part of the agreement, 80 to 95 percent of the Morris EG output is committed to Old World. Analysts have questioned whether USI will be comfortable either with this arrangement, or with the EO/EG business at all. The company declined to comment on the future of the EO/EG operations.

The Enron Chemical purchase and the decision to divest its spirits and wines group will focus National Distiller's business operations on chemicals and propane marketing.

Last year, the company posted \$729.6 million in petrochemical sales and \$307.8 million in oleochemical revenues. Enron Chemicals sales, excluding the branded products group, totaled \$530 million last year.

National's Suburban Propane unit, a nationwide marketer of propane gas, had sales totaling \$571.9 million last year. The company's spirits and wines group posted \$980 million in sales.

For its part, Enron says it wants to concentrate on its core businesses, natural gas transmission, oil and gas exploration and production, and liquids operations. Enron took its present name in April, 1988. The company was formed when Houston Natural Gas merged with Internorth last year.

### Mutagen R&D Lack

Continued from Page 7

hile mutations are unknown, no evidence directly links chemicals or radiation with mutations in human germ cells. Experiments with insects and animals, however, have shown that some substances in agricultural, industrial, and pharmaceutical chemicals in use today cause heritable mutations in some lower animals.

Recent advances in molecular genetics have opened the door to new and innovative technologies that may offer a great deal more information about DNA. Because most of these technologies involve examining DNA directly, they represent a greater degree of sophistication and potentially a major advance in determining the factors that can cause mutations.

The techniques now used embody more general and indirect approaches that rely on the clinical manifestation of disease, major changes in chromosome number or structure, or biochemical changes in certain blood proteins, none of which offers specific information about the variety of mutations that can occur, their frequency, or their causes.

The emerging technologies may provide reasonable and verifiable ways of detecting new mutations in human DNA and proteins, but they are not yet efficient enough to be used on a large scale.

With continued support, OTA says, some of the new technologies described in the report, or derivatives of them, could be available in the next five to 10 years for large-scale use. OTA points out that their ultimate application in epidemiologic studies to determine rates and patterns of mutations will be complex, requiring the collaboration of a large number of scientists.



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CHEMICAL MARKETING REPORTER

September 29, 1986

## PERFUMES & FLAVORINGS

### Synthetic Hydroxycitronellal: Spot Prices Are Holding Steady

Spot prices of synthetic hydroxycitronellal have been holding steady at \$6.50 to \$6 per pound, despite rising imports from Europe. Imports through July totaled 250,467 pounds, exceeding the full-year 1985 figure by 55,000 pounds.

Most of the imported material is from West Germany, 143,320 pounds, comprising over 57 percent. The United Kingdom has exported 34 percent, or 85,803 pounds. Trade sources report no new usages for the perfuming compound and no substantial increase in demand.

An aroma chemicals importer asserts that domestic producers of synthetic hydroxycitronellal are losing market share to foreign material. "Due to the fact that the domestic manufacturers are no longer competitive enough to hold their share of the market, imports are increasing," he says.

It is also noted that the weaker US dollar makes imported material more competitive here.

Domestic producers, however, deny that they are losing market share to importers. "We have not seen any change in our market; it has been a straight line for the past three years," says one producer.

A domestic producer points out that Proctor & Gamble and International Flavors & Fragrances have switched compounding activities from Europe to the US, increasing the US requirement for synthetic hydroxycitronellal.

An aroma chemicals broker suggests that experimental compounds from smaller importers may be enjoying a rapid turnover. "The market allows of some importers could be up because of the success of their most recent compounds." In contrast to this, he says, "the annual requirement of the larger companies is down."

### ESSENTIAL OILS

**INDONESIAN OILS** — Indonesia devalued its currency, the rupiah, more than 25 percent September 12, down from 1,132.5 rupiahs per dollar to 1,840.2. The currency devaluation affected Indonesian exports less dramatically than it did the domestic economy.

"When other countries devalued their currencies, such as France, the percentage of decline meant a similar decline in prices," said an essential oils importer. "Indonesia's, however, is for internal consumption only." Most prices for essential oils from Indonesia, therefore, remained static.

The higher priced oils did feel the effect of the devaluation, falling in line with the rest of the market. According to a US essential oils broker, "there has been a slight weakening of those essential oils that had been pushed up artificially, the more expensive ones." The importer agrees: "The devaluation of the rupiah combined with the ready availability of

the material led to their decline."

Examples of inflated oil prices that fell are nutmeg, patchouli and cloveleaf. Nutmeg oil is down from \$33 per kilo, cost and freight, New York on September 12 to \$30 per kilo September 22. Patchouli oil prices also fell during the same period from \$22 per kilo cost and freight, New York to \$19.50 per kilo. Cloveleaf oil recorded a marginal decrease of 15c. per kilo, cost and freight, New

### PRICES TRENDLINES

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 Fennel seed, Indian Reclined, 7c. per lb.  
 Laurel leaves, Turkish semi-select, 40c. per lb.  
 Laurel leaves, Turkish fancy, 35c. per lb.  
 Nutmegs, Whole & Reconditioned, 10c. per lb.  
 Orange, Greek & Turkish, 45c. per lb.  
 Patchouli Oil, South American, 25c. per kilo  
 Rosemary, Spanish & Portuguese, 2c. per lb.  
 Rosemary, Yugoslavian & French, 3c. per lb.  
 Tarragon, French Fancy, 45c. per lb.  
 Thyme, French, 10c. per lb.

#### CHANGES/DOWN

Cardamoms, Green, 50c.-\$2.25 per lb.  
 Cardamoms, Mixed Green, \$1.00 per lb.  
 Celery Seed, Indian, 1c. per lb.  
 Clove leaf Oil, Indonesian, 15c. per kilo  
 Cumin seed, Indian & Iranian, 5-10c. per lb.  
 Cumin seed, Indian & Iranian, 5-10c. per lb.  
 Cumin seed, Turkish, 3c. per lb.  
 Fir Needle Oil, Canadian, 80c. per lb.  
 Patchouli Oil, Chinese, \$4.50 per kilo  
 Peppermint, Crushed/Cut, 5c. per lb.  
 Poppy seed, Australian, 2-3c. per lb.  
 Sesame Oil, Chinese 60's, \$1.50 per kilo

#### PERFUMES INDEX

The Perfumes & Flavorings Index reflects the prices of 11 representative materials in this sector and the quantity of each supplied in 1985.

Sept. 26, 1986 ..... 71.00  
 Sept. 19, 1986 ..... 71.00  
 Aug. 29, 1986 ..... 71.00  
 Sept. 20, 1985 ..... 71.00

Chemical Prices Start on Page 32.

### SEED & SPICE IMPORTS: JUNE

A SELECTION OF STATISTICS FROM THE BUREAU OF CENSUS.

	JUNE	MAY	1986 TO DATE	JUNE '85
Caraway seed.....lb.	446,386	816,631	4,101,037	378,348
Celery seed.....lb.	176,824	196,121	2,075,143	178,448
Cinnamon, unground.....lb.	75,131	276,780	1,284,618	197,481
Coriander.....lb.	125,144	95,878	1,458,998	184,446
Cumin seed.....lb.	402,573	878,241	12,180,845	287,615
Fennel seed.....lb.	570,617	828,122	4,513,627	757,887
Garlic root.....lb.	267,604	643,848	2,797,042	298,187
Mustard seed, whole.....lb.	850,530	824,127	4,006,198	911,756
Nutmegs, whole.....lb.	6,726,882	7,280,828	44,857,070	7,187,495
Origanum, whole.....lb.	287,183	284,289	2,989,616	344,820
Peppercorns, whole.....lb.	410,480	525,362	4,011,742	457,888
Pepper, black, unground.....lb.	1,236,882	1,191,297	8,800,458	1,664,478
Pepper, red, unground.....lb.	10,695,048	11,282,303	49,824,991	1,232,233
Pepper, white, unground.....lb.	2,021,245	1,747,641	3,567,708	3,006,031
Pimento, unground.....lb.	86,368	96,735	5,596,475	108,031
Sage, unground.....lb.	80,644	113,640	535,158	87,506
Turnips.....lb.	228,840	234,136	1,856,791	346,446
Vanilla beans.....lb.	785,130	689,780	2,368,151	704,688
	92,066	82,066	7,419,219	7,704,688

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## HEAVY & AG CHEMICALS

### Oxy, Church & Dwight

Continued from Page 7

mond's chemical business or the Church & Dwight partnership.

LCP had produced potassium carbonate in Syracuse, N.Y., through a tolling arrangement with Allied Corporation, but shut that plant after Allied announced it would close its Solvay complex in Syracuse.

Church & Dwight says its interest in potassium chemicals stems from its strategy of growing through internal development and the acquisition of products complementary to its core business.

The company notes that the marketing characteristics of potassium carbonate are closely related to those of its existing carbonate products, particularly sodium bicarbonate, ammonium bicarbonate, and strontium carbonate.

Since August of last year Church & Dwight has owned 49 percent of Sales y Oxidos, a Mexican producer of atronitum carbonate. Both atronitum carbonate and potassium carbonate are used to specialty glass manufacturing and consequently, says the company, are sold to many of the same customers.

Church & Dwight expects a major growth area for potassium carbonate will be a new product it introduced about one year ago called "Hay Dry", the main ingredient of which is potassium carbonate. "Hay Dry" is an agricultural product used to accelerate the curing of hay.

On the whole, according to Occidental, the potassium carbonate market should grow at an estimated 2.1 percent per year. Much of this projection depends on the specialty glassware market, which is the largest end use for the product and which is also seen as a growth area.

#### INFLUX OF IMPORTS

This market has suffered some in recent years as the influx of imported televisions and personal computer displays displaces domestic outlets for potassium and strontium carbonate.

Imported potassium carbonate is a factor in the business, accounting for roughly 10 percent of the market. About two-thirds of imports are from France, where Rhone-Poulenc is said to produce.

West Germany, where Dynamit Nobel AG produces, follows France as the next largest exporter to the U.S. Also present are the Japanese, and E.I.F. Frutarom Ltd. of Israel.

Imports are on the decline, however, victim of the dollar's weaker value, according to one source. Through July of this year, less than 1,800 tons were imported, down over 25 percent from the corresponding period in 1985. Just over 3,000 tons were imported in 1985.

Pricing is stable, despite the changes in ownership. Liquid material at 47 percent strength lists at \$14.80 per hundredweight in tanks f.o.b. Muscle Shoals. Calcined material lists at \$32.50 per hundredweight in cars and trucks, \$35.20 per hundredweight in bags both f.o.b. Muscle Shoals. One source says that selling prices for bagged material may

be closer to 32 cents per pound in some instances.

#### BASES & SALTS

**CAUSTIC SODA** — Two caustic soda price increases were announced last week, both aimed at fourth quarter contracts. Occidental Chemical is increasing its off-list price by \$25 per ton, effective immediately on spot sales and as contracts permit.

Present list price schedules remain in effect.

#### PRICES TRENDLINES

WEEK ENDING SEPT. 26, 1986

#### CHANGES/UP

Caustic soda solution, \$25 per ton  
Sodium chloride solution, \$25 per ton

#### CHANGES/DOWN

None

#### HEAVY & AG INDEX

The Heavy & Ag Chemicals Index reflects the prices of 18 representative materials in this sector and the quantity of each produced in 1985.

Sep. 28, 1988 ..... 113.89  
Sept. 19, 1988 ..... 113.89  
Aug. 29, 1988 ..... 113.89  
Sept. 27, 1985 ..... 113.89

Chemical Prices Start on Page 32

foot as follows: \$250 per ton for standard grade and \$310 per ton for membrane or mercury cell grade, f.o.b. Tacoma, Wash.; \$210 per ton and \$230 per ton, respectively, f.o.b. Taft, La.; \$245 per ton and \$260 per ton, respectively, f.o.b. Niagara Falls, N.Y. Prices are freight equalized with nearest competitive producing point.

Atochem Inc. says it is increasing its off-schedule prices for caustic soda liquid diaphragm cell grade as well as rayon grade. The increase will be effective October 1 and as contracts permit.

The company notes that while it may be difficult to return immediately to published list prices, a \$20 to \$25 per ton increase in off-list prices, depending on grade, is necessary to improve the poor margins of the caustic soda business.

Atochem says that caustic soda inventories are on the decline both in the US and in Western Europe due to better than expected demand, primarily by the pulp and paper industry. Atochem Inc. of Glen Rock, N.J., is a subsidiary of Atochem SA of France, a major producer of caustic soda and chlorine.

**SODIUM CHLORATE** — Occidental Chemical is announcing a \$25 per ton off-list increase in the price of sodium chlorate (R-2 solution). The increase is effective immediately on spot sales and as contracts permit.

Oxychem's list price of \$420 per R-2 unit remains unchanged. An R-2 unit consists of approximately 1.0 ton of anhydrous sodium chlorate and 0.8 tons anhydrous sodium chlorate dissolved in 2.4 tons of water.

#### INORGANIC CHEMICAL OUTPUT: JUNE

SELECTED FIGURES IN SHORT TONS FROM THE CENSUS BUREAU

	JUNE '86	MAY '86	JUNE '85
Aluminum sulfate, commercial	108,483	97,534	94,897
Calcium carbide, commercial	19,113	18,139	24,890
Calcium phosphate, dibasic anhyd.	44,282	98,235	84,982
Caustic soda, dry	15,891	16,412	16,989
Caustic soda, liquid	946,136	836,991	884,896
Chlorine, gas	985,958	899,448	865,851
Chlorine, liquid	708,899	707,448	841,893
Hydrochloric acid	274,802	268,986	246,722
Hydrogen peroxide	15,137	13,183	15,497
Phosphorus, elemental	11,484	12,482	12,516
Phosphorus oxychloride	27,960	12,969	1,888
Phosphorus pentasulfide	2,111	2,193	3,331
Phosphorus trichloride	8,196	6,383	7,140
Potassium hydroxide, liquid	8,128	7,894	1,581
Potassium pyrophosphate	—	—	1,581
Sodium chlorate	1,938	1,991	2,283
Sodium metal	21,090	22,799	8,990
Sodium sulfate, anhyd.	99,289	86,728	86,990

### Pfizer Neutralizes Acid in Mass. Lakes

Pfizer, Inc. is branching out. The company embarked on a program this summer using calcium carbonate to raise the pH level of several lakes and ponds in New York's Adirondack Mountains, Plymouth and Cape Cod, Mass. damaged by acid rain. Operating from its Adams, Minn. plant, Pfizer recently delivered a shipment of limestone to Florida, Mass. where it was used to restore and neutralize the acidified North Pond in the Berkshires.

Overseeing preparation of the neutralizing agent were C.W. Kleczko, linc and limestone product manager for Pfizer, and executives of International Science and Technology Inc. I&T, a contracting firm located in Weston, Va., designed and operated the treatment

project in collaboration with Living Lakes Inc. of Washington. The program is conducted in cooperation with the US Fish and Wildlife Service who has played a major role in developing strategies to protect the nation's water resources.

Massachusetts was chosen as a research site because it once had a thriving sport fishery. Pfizer says, but its fish populations have been reduced by acid deposition.

At the staging area, a dry powder form of calcium carbonate, or limestone, was transferred by tank-truck to a waiting helicopter at the 18-acre target pond. The helicopter, specially equipped with a storage tank and spray nozzle, was then filled with a slurry of Pfizer's "Eco-Cal 14." As the helicopter flew over the pond, the mist was released.

The acid level was effectively reduced and fishing and swimming could be resumed within a few hours after spraying.

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**An index of weekly chemical market reports is on the back cover.**

cars, frt. equiv. ....lb.	.57	-
gas, l.i. c. frt. equiv. ....lb.	.58	-
Agar USP, powder, 60 to 100 mesh, dms. ....lb.	8.50	8.85
Alcohol, sym. C-8 to C-10, tanks, l.o.b. works ....lb.	.38	-
C-12 to C-13, tanks, divd. ....lb.	.57	.59
C-14 to C-15, tanks, divd. ....lb.	.87	-
C-16 to C-18, tanks, divd. ....lb.	.80	-
Aldehyde, C-8, dms. ....lb.	4.10	5.70
C-7, dms. ....lb.	1.95	-
C-6, dms. ....lb.	4.30	6.30
C-10 dms. ....lb.	4.30	6.35
Alga (see Sodium alginate) .....		
Alkal. bus. dry, flaked, 110-lb. dms. divd. ....lb.	3.72	3.83
Alkal. bus. prices f.c. higher W. of Rockies .....		
Alcalapa Guatemala / Honduran, bgs. ....lb.	.87	-
Alcalapa, bgs. ....lb.	1.05	-
Alycid chloride, tanks, l.o.b., Bayport, Tex. ....lb.	.90	-
Alylbromide, 600-lb. dms. 2,000 lb. or more, works ....lb.	5.50	-
Alylpropoxide, 25-lb. cs. ....lb.	3.90	4.80
Alyl chloride, tanks, l.o.b. ....lb.	5.50	-
Alyl isothiocyanate, bols. ....lb.	5.40	5.90
Almond oil, aral. bitter (see Benzaldehyde) .....		
Almond oil, aral. bitter, NF l.i.p.s. ....lb.	3.50	3.60
Alum, bols. ....lb.	1.24	1.50
Alum, sweet. ....lb.	1.20	-
Aloe, Cape, cs. ....lb.	2.25	2.75
powd., cs. ....lb.	2.80	-
Cusco, bgs. ....lb.	5.00	-
powd., bgs. ....lb.	5.00	6.70
Alon, NF, dms. ....lb.		
Alum, ammonium, tech. gran., bgs., o. i. l., works ....100lb.	35.00	-
FCC powd., filer dms., works 100lb. ....lb.	35.00	-
Alum, potassium, tech. gran. bgs., o. i. l., works ....100lb.	35.00	-
FCC powd. fiber dms., work. 100 lbs. ....lb.	55.00	-

# ABBREV

## THE TERMINOLOGY OF THE CHEM

<p>a/alpha aid./allowed amorph./amorphous AMP/American melting point anhyd./anhydrous AOAC/Association of Official Agricultural Chemists a.p.a./available phosphoric acid approx./approximately aral./arificial ASTM/American Society for Testing Materials</p>	<p>C/Configured cbya./carbonyl C.C./cubic centimeters CD/centrifugal distillation c.i./cost insurance freight c.l./centric cra./craze csm./commercial con./concentrated epi./epimerically pure cra./centrifuge crys./crystalline cs./cases cns./carbonous cys./cylinders</p>
<p>b/beta Ba/Baume bals./barrile b.g./beta-gama bgs./bags bols./bales bols./bottles b.p./boiling point b.p./bone phosphate of line b.r./boiling range bxs./boxes</p>	<p>d./deastro dbl./double denat./denatured dest./dist./destructive dis./disse dis./disse dist./distilled dist./distributor dist./distilled of line dom./domestic</p>

## THE TERMINOLOGY OF THE CHEMICAL MARKETPLACE

[illegible]

NOTE: A unit-ton is 1 percent of 2,000 pounds of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the unit-ton price shown in Chemical Marketing Reporter gives the price of 2,000 pounds of the material.

2-Amino-2-methyl-1-propanol, 98%, dms., c.l., i.o.b. works.....	95	-
tanks, f.o.b. works.....	96	-
c-Ammonophenol, dms., f.o.b. Charlotte, N.C.....	3.95	-
p-Aminonaphenol, i.i. dms., f.o.b. Richlin, N.C., 75 cts. per lb.....	7.15	-
p-Aminobenzoic acid, USP, 50-kilo dms., l.i. ....	18.50	-
Ammonia, anhyd., fertilizer, wholesale tanks, divd. Midwest terms.....	165.00	170.00
Aqueous, f.o.b. Gulf Coast tanks, 24% NH <sub>3</sub> , anhyd., basic, tanks, frt. equid. E of Rock- ford.....	260.00	315.00
Ammoniacal liquor (see Ammonium aqueous). Ammoniacal ac. galvanizing grade, bgs. c.l., f.o.b. works.....	28.60	-
Ammonioacetate salt, fine (see Ammonium chloride cont.). Ammonium bicarbonate, gran., dms., c.l. works.....	90	-
Ammonium bicarbonate, 50-lb. pps. b higher. dms., c.l., works.....	25.00	-
bgs., c.l., works.....	28.00	-
Ammonium bihydroxide, phos. acid grade, gran., 100-lb dms., l.i. l. works.....	2.00	-
Ammonium bifluoride, bgs., l.i., works.....	.70	-
Ammonium bromide, dms., gran., dms., c.l., f.o.b. works.....	1.31	-
Ammonium chlorides, white, tech., fine gran., bgs., c.l., USP, gran. dms., 100 lbs.....	18.00	-
Ammonium citrate, basic, 250-lb dms., f.o.b. works.....	2.79	-
Ammonium dimolybdate, approx. 85% 24,000 lbs. armore, h Ammonium fluoroborate, tech., dms., c.l., f.o.b. works.....	5.48	40 .53
Ammonium heptamolybdate, crysl. dms., 24,000 lbs. f.o.b. works.....	5.57	-
Ammonium lauryl sulfate, tanks, f.o.b. works.....	28	32
Ammonium lignin sulfonate, bulk, f.o.b. Hogland, Ore.....	72.00	-
Ammonium nitrate, com., fertilizer grade, 33.5% N, bulk, 3 E. divd. Midwest terms.....	130.00	136.00
Ammonium oxalate, tech., fine, gran. 300-lb dms., l.i., f.o.b. works.....	1.42	1.56
Ammonium pentaborate gran., bgs., c.l., works.....	.75	-
Ammonium pentaborate powder, 200-		
Anise seed, Egypt, bgs.....	lb.	.63
Spanish, bgs.....	lb.	1.00
Turkish, bgs.....	lb.	.87
Anisic aldehyde, dns., dms.....	lb.	4.80
c-Anisidine, imp., dms., divd.....	lb.	2.27
p-Anisidine, imp., cast solid, dms., works.....	lb.	1.80
Ilokas, same base.....	lb.	1.60
Anthranic acid, purif., 89% min., dms., l.i., frt. eqd.....	lb.	1.70
Antimony fluoborate, liq. concn, 175-lb dms., l.i. works.....	3.02	-
Antimony metal, bulk, c.l., mines.....	lb.	1.35
Antimony oxide, high-tint, bgs., c.l., frt. eqd. E of Rockford.....	lb.	1.38
Antimony trichloride, anhyd., solid, dms., 1 works.....	lb.	1.35
Apomorphine hydrochloride, NF, bobs.....	lb.	3.80
Apricot kernel oil, refined.....	gm.	15.00
Arabic gum, powd., bbs.....	lb.	2.05
spray dried.....	lb.	2.15
USP grade.....	lb.	2.00
Aromatic petroleum solvents (see Solvent, naphtha) petroleum distilled.....	lb.	6.75
Asonic, crude (see Arenaceous oxide) Aryl, red (see Naphyl eryd) red Arenaceous trioxide, 98%, bulk, c.l., f.o.b. warehouse.....	lb.	.42
Asbestos (see Talc fibers)	lb.	.45
Ascorbic acid, USP, 100 kilos, divd.....	kilo.	8.00
Ash, black (see Barium sulfide) Asphalt element, (see Chlorinated) Asphalt petroleum cutback, tanks, E Coast.....	gal	.85
emulsion, inks, tankwagons, E Coast.....	gal	.68
steam-refined, 40-50 percent tanks, tankwagon.....	ton	170.00
steeping rootstock, bulk tankwagon dn.....	ton	175.00
Aspirin.....	ton	175.00
USP, cryst., powd., 250- lb dms., c.l., f.o.b.....	lb.	1.95
10% starch granulation, white, 250- lb dm, c.l., f.o.b.....	lb.	1.97
16% starch granulation, white, same base.....	lb.	2.80
Freight equal ship. identical quality over standard from N.Y., Philadelphia, Midland, Chicago and Louis.....	lb.	1.30
Atropine sulfate, USP, bots.....	oz.	10.00
Avocado oil, dms.....	kg.	4.00
Azelaic acid, tech., 50-lb. bgs., l.i., c.l. works.....	lb.	1.23
Azo orange, bbs, divd.....	lb.	4.60
Azo yellow, 10 G, bgs., divd. E of Rockford.....	lb.	2.45
Azodyloxyl pigment, bgs., same ba- sis.....	lb.	2.40

[illegible]

# ATIONS

## AL MARKETPLACE

<b>E/East</b> a.p./end point equid./equalized exp./expressed a.td./retreated	<b>Inc./included</b> Ind./Industrial kgs./kilog	<b>e-fortho</b> ord./ordinary ex./ounce	<b>acca./seconds</b> a.p./specific gravity slip./slipment aom./solution a.id./standard syn./synthetic
<b>F./Fahrenheit</b> l.a./free alongside ferment./fermentation l.f.a./free fatty acid l.f./free from chlorine l.f.p.a./free from prussic acid fib./fiber l.a.b./free on board l.p./freezing point l.t./weight	<b>f./flow</b> lb./pound l.f./free carload l.f.l./free truckload liq./liquid	<b>F/Phosphorus</b> p./part Pac./Pacific p./proof phos./phosphate photo./photographic pkgs./packages powd./powdered precip./precipitated prod./producer pt./point	<b>tanks./tactical tanks</b> tech./technical t./ton t./tonnet ton/tonnet for short ton of 2,000 pounds TVA/temporary voluntary allowance t.w./tank wagon
<b>g./gramma</b> gm./pailon g.p./general purpose gm./grammer grd./ground	<b>m./mets</b> m.a./mixed aniline point mgp./microgram mfr./manufacturer mfr./manufacturer mol./mole m.p./melting point	<b>pt./point</b> pulv./pulverized purif./purified radial./radially red./reduced ref./refinery res./resin ret./retained ret./returnable	<b>USB/United States Pharmaceutical</b>  <b>vie./viscosity</b> V.M.P./varnish makers & painters
<b>l.b./trial boiling point</b> imp./imported	<b>N./Nitrogen</b> n./normal N.W./National Formulary No./number Nott./notation	<b>SD/specially denatured</b> s.d./single distilled Sl/Southeast ss./secondary	<b>W/West</b> whse./warehouse w./water-white

**NOTE:** A unit-ton is 1 percent of 2,000 pounds of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the unit-ton price shown in Chemical Market Reporter gives the price of 2,000 pounds of the material.

[illegible][illegible]

# CAMEL PRICES

WEEK ENDING SEPT 28, 1986

Carbon black, old, generator size, bulk, c.i., l.o.b. works, ton	402.00		
Calcium carbonate, pulverized, 325-mesh, bgs., bulk, l.o.b. works, ton	34.50		
alumina, 54% solids, same basis, ton	167.00		
72% solids, same basis, ton	88.00		
quicklime, gran., ind., bulk, works, ton	57.00		
Calcium carbonate, coated, bgs., c.i. works, ton	37.42	1360	
Calcium carbonate, prop., bgs., c.i. works, ton	370.00	430.00	
Calcium carbonate prep., medium, bgs., c.i. works, ton	95.00	140.00	
prop. dense, bgs., c.i., surface treated, bgs., c.i. works, ton	160.00		
ultrafine USP, bgs., c.i. works, ton	180.00	170.00	
Calcium chloride, conc. reg. grade, 77-80%, flake, bulk, c.i. works, ton	153.00		
100-lb. bgs., c.i., same basis, ton	188.00		
anhyd., 84-97%, flake or pellet, bulk, c.i., same basis, ton	217.00		
80-lb. bgs., c.i., same basis, ton	279.00		
brining grade, 80-lb. bags, ton	295.00		
Calcium chloride, 93-100%, same basis, l.c., l.i., barge, ton	88.75		
45% same basis, ton	11.00		
Calcium chloride, USP, gran., 225-lb. dms., l.i., fr., freight, ton	90		
Calcium chloride, 2000 lbs. dms., 10,000 lbs. or more, l.o.b. works, ton	3.82		
Calcium cyanamide, Indian, anhyd., dms., works, ton	400.00	450.00	
Calcium gluconate, USP, 100-lb. dms., ton	1.80		
Calcium hydroxide, lvs. dms., 25-1,000-lb. lots, works, ton	10.50	13.25	
Calcium hypochlorite, 100-lb. dms., truckloads ship't. E of Rockland, 100-lb. dms., ton	82.40		
Calcium hypochlorite, dms., bulk, 500 kilos or more, kilo	13.75	14.50	
Calcium iodate, FCC dms., l.o.b. works, ton	5.50		
Calcium iodide, 50-kilo dms., l.o.b. works, ton	23.65	25.85	
Calcium lactate, NF, powd., penamethylene, dms., 24,000 lbs. or more, l.o.b. works, ton	2.00		
NF, gran., trihydrate, same basis, bgs., spec'grain, dried gran., same basis, ton	2.80		
Calcium naphthalenat, 4% Ca, c.i., l.o.b. plant, E of Rockland, ton	.85		
d-Calcium pentahydrate, USP, 100-500 lbs. dms., ton	11.50	12.50	
di-Calcium pentahydrate, lead grade, l.o.b. fr. ind. 250 kilos or more, kilo	8.00	8.50	
di-Calcium pentahydrate, calcium chloride complex, lead grade, 150 grams per lb., l.o.b. fr. ind., 500 lbs. or more, kilo	2.75		
Calcium phosphate, dibasic, lead grade, 16 2/3% P, bulk, c.i., l.o.b. works, ton	228.00		
Calcium phosphate, dibasic, dry, l.o.b. works, c.i., l.i., works, fr. ind., 100 lbs. ton	62.50		
anhyd., food grade, same basis, 100-lb. dms., ton	71.75		
tribasic, NF prep., bgs., c.i., 100-lb. dms., ton	82.60		
Calcium propionate, dms., 2,000 lbs. or more, l.o.b. fr. ind., ton	50	55	
Calcium silicate, hydrated, bgs., c.i., works, ton	.07		
Calcium silicate, panel grade (see Silicates), ton	8.50		
Calcium stearate, 100-lb. dms., ton	6.50		
Camphor, monomonomerated, dms., bgs., ton	3.63	3.70	
Camphor, sup. tech., 165-lb. dms., 5,000 lbs. or more, ton	1.80		
USP, powd., 165-lb. dms., 5,000 lbs. or more, ton	2.38		
eye, red, 1-cs. tablets, dms., 1,000-lb. lots, l.o.b. or more, ton	3.60		
Camphor oil, yellow, 25-lb. dms., ton	2.50		
white, dms., ton	2.00	2.25	
spec. grav., 1.070, dms., kilo	17.00		
Camphor oil, Indonesian, dms., kilo	1.80		
Camphor wax, crude, dms., kilo	2.10		
refld. pure, bgs., ton	.80	.86	
Capric acid, cont'd. pure, dms., ton	.80	.85	
Capric acid, (dibutylate C-10) dms., ton	8.95	5.35	
Caproline, NF, flake, bgs., l.i., l.o.b. shipping, ton	.87		
molten, tank, same basis, ton	.85		
Capryl alcohol, 92-98% tanks, l.o.b. works, ton	.35		
Caprylic acid, cont'd. pure, tanks, ton	.76		
Caprylic acid, Pepper, ton	11.00		
Capryl alcohol (see Caprylic alcohol)			
Capryl alcohol, NF, from dms., pepper, dms., ton	11.00		
NF, from African, dms., ton	9.00		
800,000 pungency, ton	17.00	18.00	
1,000,000 pungency, ton	22.00	25.00	
Caraway seed, Polish, dms., ton	.56	.59	
Caraway seed, Dutch, dms., ton	.52		
Caraway seed, ton	.52		
Carbonyl base, ton	2125		
Carbon black, furnace, fast extruding (FEF), bulk, c.i., works, ton	2489		
bulk, c.i., works, ton	2079		
general purpose, bulk, c.i., works, ton	2376		
high abrasion (HAP), high structure, bulk, c.i. works, ton	2300		
bulk, c.i. works, ton	2600		
Carbon black, low structure, bulk, c.i. works, ton	240	280	
bags, c.i. works, ton	270	280	
Intermediatate-super-abrasion, ton	25		
bulk, c.i. works, ton	25		
super-abrasion (SAF), bulk, c.i., ton	31		
bulk, c.i. works, ton	4050		
semi-reinforcing (BRF), bulk, c.i., ton	210		
bulk, c.i. works, ton	240		
bulk, c.i. works, ton	30	30	
Carbon black oil, range, l.o.b. Gulf refiner, ton	10.50	12.50	
l.o.b. W. coast refinery, ton	10.50	12.50	
Carbon disulfide, c.i., l.o.b. works, ton	420.00		
Carbon tetrachloride, CFC, consumers, dms., c.i., fr. ind., ton	36		
tech., dms., c.i., fr. ind., ton	31		
tank transport (min. 4,000 gals.) fr. ind., ton	24		
Carboxymethyl cellulose (see CMCC)			
Casamontan NF, bgs., ton	75.00	100.00	
Cardamoms, Congo, Guatemalan, lb.	3.00		
green, Guatemalan, bgs., ton	8.25	9.75	
Carminia No. 40, NF, bulk, 100-lb. dms., or more, dms., ton	135.00	140.00	
Carmaux wax, Panamby, No. 1, yellow, lvs., tons, ton	1.85	2.05	
Caera, No. 1, yellow, bgs., ton	1.75	1.90	
North Country, No. 2, refined, bgs., ton, lvs., ton	1.55	1.50	
Carmaux wax, North Country No. 3, refined, bgs., ton, lvs., ton	1.10		
North Country, No. 3, refined, bgs., ton, lvs., ton	1.30	1.40	
Powdered carmaux wax, 20 to 100 mesh, 200 per lb., higher, ton	40.75		
b-Carotene, investment grade semi-solid suspension, 400,000 A units per gram, 33 lbs. or more, lb.	32.75		
b-Carotene, liq. in vegetable oil, 500,000 A units per gram, 33 lbs. or more, lb.	28.75		
b-Carotene, dry, beads, 10%, 187,000 A units per gram 50-lb. cns, lb.	48.00		
d-Carvone, 25-lb. dms., syn., ton	7.00	7.25	
d-Carvone, ton	1.00		
Cascara sagrada, bulk, prep., bgs., ton	1.45		
Caselin, Imp., acid-pickled, grad. 60-mesh, Australian, same basis, c.i., ton	1.35		
Australian, Indus., same basis, c.i., ton	1.35		
Casselle acid, 303-mesh wt. dms., fr. ind., ton	3.70		
acid, 100% basis, ton	1.35		
Cassia (Korri) "A" bgs., ton	95		
"B" bgs., ton	72		
USP 9-9.9, No. 1, Braz. tanks, lb.	31		
lead acid, 50-ton dms., ton	74		
USP 9-9.9, dms., ton	78		
blown, 58 dms., ton	75		
densified, bottled, tanks, lb.	74		
dehydrated, unbottled, tanks, lb.	75		
Caster oil, 50-ton dms., ton	1.10		
trichloric acid, dms., ton	.79%		
Caster pomace, bgs., container load, ton	154.00		
l.o.b. Miami, Fr., ton	18.00	35	
Catechu, nat., ons, ton	11.00		
Catechu, CP, 45-lb. dms., 60-239 dms., l.o.b., ton	7.93		
tech. bgs., l.i., same basis, ton	3.71		
Caulic oil (see Polish, caustic), ton	17.50		
Caulic soda (see Soda, caustic), ton	3.50		
Cedarwood oil, Texas, dms., ton	3.70		
Cedrol, prime dms., ton	5.25		
Cedryl acetate, dist. dms., ton	4.25		
Celery seed, Indian, bgs., ton	60.00		
Celery seed, ton	52.50	5	
Cellulose acetate, powd., bgs., l.i., dms., E, ton	1.30		
Cellulose acetate butyrate, powd., l.i., butyl content, bgs., l.i., dms., E, ton	1.75		
50% butyl content, bgs., dms., E, ton	1.50		
50% butyl content, bgs., dms., E, ton	1.81		
50% butyl content, bgs., dms., E, ton	1.83		
Cellulose, pure, gum, high vis. bgs., 24,000-lb. lots or more, works, ton	1.60		
l.i. Hopewell, Va., ton			
std., low or medium vis., bgs., ton	1.60		
l.i. Hopewell, Va., ton	1.35		
Cerium concentrate 90% CeO <sub>2</sub> , dms., ton	6.40		
works, ton	4.20		
77% CeO <sub>2</sub> , dms. Hopewell, bgs., 60-lb. lots or more, dms., ton	1.88		
Chick (see Calcium carbonate)	.68%		
Chick (see Calcium carbonate)			
Chlorine (see Chlorine)			
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Carbon Black, low structure, bulk, c.f. works.....	240	280
bags, c.f. works.....	270	290
Intermediate- <i>super-s</i> abrasion (ISAF).....	lb.	-
bags, c.f. works.....	25	-
super-abrasion (SAF), bulk, c.f. works.....	31	-
bags, c.f. works.....	4050	-
semi-reinforcing (BRF), bulk, c.f. works.....	210	-
bags, c.f. works.....	240	-
Carbon black, thermal, medium, bags.....	30	300

Carbon black oil, barge, l.o.b. Gulf re-		
finerize..... bbls.	10.50	12.50

10-b. W. coast refineries	10.50	12.80
Carbon disulfide, f.o.b., U.S. works	420.00	
Carbon tetrachloride, CP, consumers		
disol., f.r.t. add.	.36	
tech. dms., c.l., 11, f.r.t. add.	.31	
tank transport (min. 4,000 gals.)		
f.r.t. add.	.24	
Carbonyl chloride (see CMO)		
Cadmium of NF, bolts	75.00	100.00
Cadmiums, decort, Gustemalen, lb.	3.00	
green, Gustemalen, lb.	8.25	97.00
Carbina, No. 40, NF, bulk, 100-lb. cts.		
100-lb. cts.	135.00	140.00
Carmaux wax, Parnelyne, No. 1, yellow, bgs., tonlots	1.95	2.05
Caera, No. 1, yellow, bgs., ton lots		
100-lb. cts.	1.75	1.90
North Country, No. 2, refined, bgs., tonlots	1.55	1.80
Carmaux wax, North Country No. 3, centrifuged, bgs., tonlots	1.10	
North Country, No. 3, refined, bgs., tonlots	1.30	1.40
Powdered carmaux wax, 29 to 100 mesh, 20c. per lb. higher		
B-Carotene, in vegetable oil, semi-solid suspension, 400,000 A units per gram, 33 lbs. or more	32.75	
B-Carotene, liq. in vegetable oil, 500,000 A units per gram, 33 lbs. or more	40.75	
B-Carotene, dry, beads, 100, 187,000 A units per gram 50-lb cns	28.85	
C-Carotene, 25-lb dms. syn	48.00	
C-Carotene, 25-lb dms. syn	7.00	
Cacarea saparilla bark, bulk	1.00	
Casem, fmp., acid-precip., grd., 50-mesh, Australian, acidble, same basis, c.i.t.	1.45	
Australian, Indust., same basis, c.i.t.	1.385	
Casselle acid, 303 mt. wt. dms., f.r.t. add., 100% basis	3.70	
Cassie, Konig's "A" bgs.	.72	
"B" bgs.	.71	
Castor oil, raw, No. 1, Braz. tanks, USP 5-9 dms.	.75	
refined, 5-9 dms.	.78	
blown, 5-9 dms.	.74	
deated, bodied, tanks	.75	
dehydrated, unbodied, tanks	.65	
Castor oil, acids dehydrated, dms., lb. rholic acid	1.10	
Castor pomace, bgs., container load, f.o.b., Miami, Fla.	154.00	
Castorone, cns., ons.	18.00	35.00
syn. cns.	11.00	
Castrol, C.P. 45, 45-lb dms.	79.33	
tech. dms., 10-lb.	7.93	
Caustic potash (see Potash, caustic)		
Caustic soda (see Soda, caustic)		
Cedaryl oil, dms.	17.50	
Cedarwood oil, Texas, dms., ons.	3.50	
Virginia	3.70	
Cedrol, prime dms.	4.25	
Cedrol acetate, dms.	5.25	
Celery seed, Indian, bgs.	48.00	
Celery seed oil	50.00	
Celulosic acetates, powd., bgs., 1-l. dms., f.o.b., E.	1.30	
Cellulose acetate butyrate, powd., 17% butyl content, bgs., 1-l. dms., f.o.b., E.	1.75	
58% butyl content, bgs., dms., f.o.b.	1.59	
58% butyl content, bgs., dms., f.o.b.	1.81	
Cellulose gum, pure, high vis. bgs., 24,000-lb. tote or more vis.	1.60	
Cellulose acetate, dms., f.o.b., E.		
aid., 100% or medium vis., bgs., c.l., 1-l., f.o.b. Hopewell, Va.	1.60	
Cerium carbonate CaCO <sub>3</sub> , 50-lbs., lb.	1.30	
Cerium hydrosulfate Na <sub>2</sub> SO <sub>4</sub> , dms., 77% CaCO <sub>3</sub> dms., works	4.20	
Calcium oxide, optical grade, bgs., 50-lb. tols or more vis.	1.88	
Calculation, NF, cns., c.l., 1-l. dms., f.o.b., E.	.685	
Chalk (see Calcium carbonate)		
Chamomile flowers, Hungarian, cs.	4.25	
Roman, cs.	2.70	
Egyptian, whed.	3.00	
Chamomile oil, blue, Egyptian	345.00	
blue, Hungarian	570.00	
Chenopodium oil, NF, cns.	15.00	
Chicago acid, dry, bgs., f.r.t. add.	13.50	
Chlorine, Pappas, lb.		
Chloroform anhydrous, tech., dms., 1-l. works	1.30	
Chlorinated paraffin, 40% chlorine, 50-lb. dms., 200-lb. cts.	45	
50% chlorine, same basis	48	
50% chlorine, respidue, 50-lb. bgs., oil, dms., 200-lb. cts.	48	

WEEK ENDING SEPT 26, 1986

Chlorinated paraffin, Zone 2 prices are 1c. per lb. higher and Zone 3 prices are 2c. per lb. higher and U.I. drum prices are 5c. per lb. higher.

acetone, 99%+ pure, 50 cgs. bgs.	1.86	-
Al, divd.	1.92	-
40 cgs. bgs. Al, divd.	1.92	-
125 cgs. bgs. Al, divd.	1.80	-
300 cgs. bgs. Al, divd.	2.75	-
Chlorine, tanks single units works,		
l.o.b., fr. trucked.	195.00	200.00
Chloroacetic acid, mono, high purity,		
flasks, 99% bulk l.o.b.	.58	-
2-Chloro-4-aminotoluene, tech. lq.	1.88	-
dms., c.I., l.o.b. works.	1.63	-
p-Chloroanisole, liquid, dms., c.I., l.o.b.	1.85	-
works.	1.63	-
tanks, same bases.	1.53	-
p-Chloroanisole, solid, c.I., l.o.b.	1.70	-
flasks, dms., c.I., same bases.	1.00	-
p-Chloro benzaldehyde, dms., l.o.b.	2.45	-
works.		
p-Chlorobenzaldehyde, dms., 2,000		
lbs. or more, works.	3.84	3.85
p-Chlorobenzoyl acid, dms. l.o.b.	3.80	-
p-Chlorobenzoyl chloride, 500-lb.		
lots or more, works.	1.69	2.25
p-Chlorophenol, tech. tanks, divd.	.34½	-
lq. tank, consumers, tanks, divd.	.34½	-
NF tanks, min. consumer, 4,000	.35½	-
2-Chloro-4-nitroanisole, paste, com-		
modity basis, dms., l.o.b.	3.06	-
powd., same bases.	3.15	-
4-Chloro-2-nitroanisole, 172.5		
mol. wt., commodity base,	2.25	-
dms., l.o.b.	2.70	-
com. same bases.	2.00	2.40
p-Chlorophenol, dms., c.I., l.o.b.	1.25	1.70
aqueous.	1.85	-
p-Chlorophenol, dms., c.I., l.o.b.	1.25	-
aqueous.	1.00	-
Chlorosulfonic acid, tanks, lq.	18½	-
aqueous.	1.85	-
p-Chlorotoluene, tech. tanks,		
works.	24.00	-
Chloroacetaldehyde, dry, 40,000 cns.		
per gram, kilo lots.	6.90	-
Choline bitartrate, crystal, 98% min.		
50 lbs. dms., l.o.b. Springfield,		
Mo.	5.90	-
Choline chloride, feed grade, 70%		
aqueous, l.c. l.o.b. divd. E of		
Rockies.	.28	-
80% dry supplement.	.39	-
Choline chloride, 80% dry supplement,		
bulk hog lots.	.39	-
bgs., 50,000 lbs. min.	.40	-
Choline chloride, pharmaceutical		
grade, 99%+ pure, 500-lb.		
lots, l.o.b. Springfield,	5.00	-
Mo.		
Choline hydrocyan chloride, 88% min.		
50 kilo lots, l.o.b. Springfield,	6.00	-
Mo.		
Chrome green, CP extra light, bgs.		
divd. E of Rockies.	1.88	-
light bgs., same bases.	1.70	-
medium bgs., same bases.	1.72	-
extra exp. CP, same bases.	1.74	-
Chrome orange, CP bgs., divd. E of		
Rockies.	.83	.86
Chrome yellow CP bbs., divd. E of		
Rockies.	1.09	1.18
Chrome acid, 98½%, flake dms. c.I.		
lq. equal.	1.18	-
grd., same bases.	1.25	-
Chromium acetate, solid, 99%+ pure,		
600-2,000-lb. lots, works.	.10	-
Chromium fluoride, dms., l.o.b.		
works.	.81	-
Chromium fluoride, 500-lb. dms., same		
bases.	.74	.86
Chromium oxide, hydrated, 50-lb.		
bgs. c.I.	5.50	-
pure, bgs. c.I.	1.90	2.00
Cinnamic aldehyde, cns., dms.	1.85	2.45
Cinnamic alcohol, 25-lb. cns.	.40	-
Cinnamic acid, 25-lb. cns.	1.69	-
Cinnamyl alcohol, 25-lb. cns.	1.50	1.10
Cinnamyl benzoate, 25-lb. cns.	88.00	85.00
Cinnamyl ferul. oil, dms.	2.80	-
Citral, net, l.o.b.	5.50	8.85
syn. 55 gal. lots.	3.18	-
Citric acid USP, hydrous, 250-lb.		
dms., l.o.b.	1.19	-
Citric acid USP, anhyd., gran. 250-lb.		
dms., l.o.b.	.86	-
Citric acid trihydrate, powder.		
Citronella oil, Caylon, dms.	2.12	2.24
Citrus, dms.	5.05	-
Citrus, dms.	4.30	-
Citronellal, 25-lb. cns.	3.88	7.40
Citronellol drums, l.o.b.	3.90	-
Citronellyl acetate, dms.	5.50	8.50
Citronellyl formate, 25-lb. cns.	5.85	-
Civet, botts.	20.00	-
nat. l.o.b.	500.00	-
Clay ball, air floated, bgs. c.I.		
Tenn.	48.00	-
ton crushed, moisture-repel-		
ling, c.I., Tenn.	24.00	-
City China (see Koolin).		
Cleaners, naphtha, 140° flash tanks,		
New Jersey or New York,	1.40	-
divd.	3.10	-
Clove leaf oil Indonesian, reg. dms.	1.18	-
Medagasc., reg.	3.60	-
Clove bud oil.	24.00	-
Clove bud oil, 25-lb. cns.	3.80	-
Zanzibar.	4.20	-
Medagasc.	4.20	-

CMC, technical, 85% minimum low or medium, bgs., 24,000 lbs., f.o.b. Hopeville, Va., 100% basis	lb.	1.25	
detergent makers, 100% manufacturer, 100% basis	lb.		64
CMC, pulp, high-vis. (see Calumex gum)			
Coastal pitch, indus. - gal. works	250.00	265.00	
roofing, 140-155, Federal specification RP-381-1, type 1, bulk works			
Coastal acetate, dms., 1 l., frt. alt.	350.00		
Coastal carbonate, powd., dms., frt. alt.	8.61	8.18	
Coastal chloride, dms., 5,000 lbs. or more, frt. alt.	4.15	-	
Coastal hydrate dms., 1 l., frt. alt.	8.20	10.65	
Coastal meal, 90.5-99 Chicago, 250-kilo dms., f.o.b. NY, Chicago, lb.	11.70	-	
Coastal phenate, 1 lb., 6% Co., dms., frt. alt.	2.08	-	
Coastal nitrate, dms., 1 l., frt. alt.	2.74	3.45	
Coastal oxide, imp., black, 72-73% Co.	9.51	-	
Coastal oxide, imp., 70% Co., dms.	8.78	-	
Coastal phosphate, powd., 32 1/2% P <sub>2</sub> O <sub>5</sub> , dms., frt. alt.	1.35	-	
Coastal resinate fused, 3% Co., dms.	38 1/2	-	
Coastal sulfate, 100% dms., 10,000 lbs. or more, frt. alt.	2.81	3.54	
monohydrate dms., frt. alt.	4.68	6.02	
Coastal sulfate, 8% Co., dms., frt. alt.	2.18	-	
Coastal bark, 100% dms., frt. alt.	40	45	
Coastal bark, 100% dms., frt. alt.	2.33	-	
Coconut oil (See Oleo, Fats & Waxes market report).			
Coconut oil acids, distilled, 1 l., f.o.b.	52	58	
double distilled, same basis	54	63	
Cod oil, f.o.b. Gloucester, Mass., bulk	8.50	-	
Codene sulfated, 25-35 kilotoils, dms.	900.00	-	
Codene phosphate, USP, 25-kilo lots	840.00	-	
Codine sulfate, NF, 25-kilo lots	775.00	-	
Codifier oil, NF, dms.	6.50	7.25	
Codipate balsam, dms.	1.50	-	
Codipate oil, dms.	3.75	-	
Codipate sulfate, monohydrate, tech., dms., 1 l., works	71	74	
Copper bromide, (cupric) 200-lb. dms., 100,000 lbs., per-year contracts, works.	134	-	
Copper carbonate, 55% Cu, dark, dense, 50-lb. bgs., c.t. l.	108.30	-	
light, 50-lb. bgs., c.t. l., works	108.30	-	
Copper chloride (cupric), anhyd., c.t. l., works	90	-	
Copper cyanide, tech. dms., 24,000-lb. lots, or more	2.30	2.82	
Copper fluorosulfate, 100% Cu, dms., 1 l., works, frt. alt.	82	-	
Copper gluconate, FCC grade, 25-lb. dms., frt. alt.	6.50	-	
Copper maleic electrolytic wire bars, 62 1/2% domestic, basis	62 1/2	-	
Copper naphenate, 1 lb., 8% Cu, dms., frt. alt.	1.19	-	
Copper nitrate (cupric), 100% Cu, dms., 1 l., works	43 1/2	-	
Copper oleate, solid, 8% Cu, dms., works frt. alt.	97	-	
Copper oxide, black (cupric), dms., 80,000-lb. lots, frt. alt.	1.21	1.19	1.20
rad (cuprous) dms., 87% USN type 1, (AA), 800-lb. lots, works	1.15	-	
rad, 90% Cu, dms., 1 l., works	1.15	-	
Copper-S-quinolate, 10% Cu, emulsion, 1 l., works	2.52	-	
Copper sulfate, crystal, pentahydrate, 98% bgs., G.I., f.o.b. works	46.45	-	
CP, pentahydrate, crystal, dms., c.t. l., works	80.00	-	
monohydrated, 35% Cu, dms., c.t. l., works	76.10	-	
basic, cgs., c.t. works	68.30	-	
Corlander oil, USP dms.	22.00	26.00	
Corlander seed Moroccan	36	-	
Fluminate	36	37	
Corn (See Oleo, Fats & Waxes market report).			
Corn oil, crude, foots (sopactol), 95% oil, New York	13 1/2	14	
Corn oil acid, dms.	50	-	
Corn oil, 1 l., works	32	40	
Corn syrup 43 ss., 100-lb. works	11.22	11.43	
Cortisone acetate, USP, dms., 5 kilos or more	80	-	
Cottonseed meal (See Waxes market report)			
Cottonseed oil (See Oleo, Fats & Waxes market report)			
Cottonseed oil, acidulated (sapon stock), acid, 86% tanks	13	-	
N.Y.	85	-	
Cottonseed oil acids, dist., dms.	68	-	
tanks	55	-	
Coumarin, NF X, crystal, over 600-lb.	8.00	8.20	
Cream of tartar (potassium bitartrate), f.o.b. works	1.15	1.18	
cont. 30/20, tanks, same basis	1.134	1.17	
Cresilene	4.31	-	
m-Cresol, 95-98%, dms., 1 l., f.o.b. tanks, same basis	1.85	-	
m-p-Cresol, 99%, dms., 1 l., f.o.b. tanks, same basis	94	-	
o-Cresol, 95% pure, dms., 1 l., f.o.b. tanks, same basis	82	-	
o-Cresol, 85% pure, dms., 1 l., f.o.b. tanks, same basis	87	-	
98% pure, dms., 1 l., f.o.b. tanks, same basis	87	-	
o-Cresol, 95% pure, dms., 1 l., f.o.b. tanks, same basis	76	-	
o-Cresol, 95% pure, dms., 1 l., f.o.b. tanks, same basis	1.22	-	
o-Cresol, 95% pure, dms., 1 l., f.o.b. tanks, same basis	56	1.15	
Cresylic acid, coular, dms., metapara content above 25%, resin and triac phosphate grade			
tanks, 1 l., frt. alt.	58	-	
Cresylic acid, coular, metapara content 25% or less, tanks, 1 l., frt. alt.	58	-	
Crotonic acid, 200-lb. dms., 1 l., f.o.b.			
N.Y.	1.60	-	
Crotonic acid, 200-lb. dms., 1 l., f.o.b.	510.00	560.00	

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phosphate, seaweed grade, 100 percent basis, l.o.b. works, ton	178.00	256.00	
nitrate, crys., dms, l.t., l.o.b. lb.	1.84	-	
oxalate, tech, same, dms, lb.	1.85	-	
l.o.b. works, lb.	1.85	-	
oxides (see Iron Oxides), lb.			
phosphate, FCCG/inoleuble powder, dms, 10,000 lb., lb.	1.10	1.15	
pyrophosphate, soluble, pure, lb.	1.11	-	
pears, 60-lb. dms, lb.	1.11	-	
realinote, precip., 8.75% Fe, dms, ton/lot/lt. alid., lb.	45	-	
sulfate, partly hydrated, 100 lb. dms, lb.	117.00	-	
l.o.b. works, ton	141.00	-	
ammonium citra, NF, brown, green gran. 10 lb. dms, 2,000 lb. min. l.o.b. shipping ton	2.00	2.95	
ground sulfur for shipments W. of Denver			
ammonium oxalate, fine gran, 250-lb. dms, l.t., l.o.b. works, lb.	42	-	
l.c. hydroxyacetic acid, dimethyl-acetic acid, industrial grade, sodium salt, sohd., 4.5% Fe, t.c., l.t., l.o.b. works, lb.	55	-	
glucuronic acid, sodium salt, ton, 5% Fe, t.c., l.t., l.o.b. works, lb.	84	-	
fluoroborate, com., dms, l.t., works, lt. eqval., lb.	84	-	
gamma glucosamine, NF, 11 lb. dms, 2.25	2.25	-	
gamma neophenol, lb., 6% Fe, dms, dms, 100 lb. dms, l.o.b. works, 30.00	30.00	-	
heptaphosphate, gran, bulk, l.o.b. works, lb.	146.00	150.00	
monohydrate, gran, bulk, l.o.b. works, ton	170.00	180.00	
USP, powder, 400-lb. dms, ton	49	-	
USP, 250-lb. dms, lb.	61	-	
Canada dms, lb.	10.00	-	
Sperdy, dms, lb.	12.75	-	
oil, refid., alkali, tanks, c.l.	39	-	
terte-booth, tanks, c.l.	24	-	36
acid, cold-pressed, dms, c.l.	32	-	
tanks, lb.	28	-	
sheamal, dom., menhadon, 60% protein grad, bulk, l.o.b. Atlantic port, ton	295.00	-	
l.o.b. Gulf port, ton	290.00	-	
Imp., Chilean, 85% protein min, bulk, c.l., lt. eq. white, l.o.b. Atlantic and Gulf ports, ton	285.00	-	
lactic acid, dms, l.t., works, lb.	70	-	
lucrocarbon, No. 11 bulk, tanks, dms, lb.	57	84	
No. 12, bulk, same basis, lb.	68	114	
No. 113, bulk, same basis, lb.	89	93 3/4	
No. 114, bulk, same basis, lb.	1.02	1.08	
fluosilicic acid (see Hydrofluosilicic acid), lb.			
Formaldehyde, 37% methanol (see formalin), lb.	.088	.0905	
44-45% (1% methanol) tanks, dms, lb.	1.015	1.065	
37% (inhibited 7% methanol), lb.	.0945	.1025	
37% (inhibited 1-15% methanol) tanks, dms, lb.	1.055	1.080	
Formamide, tanks, l.o.b. lb.	39	-	
dms, same basis, lb.	49	-	
Formic acid, 80% conc., l.o.b. works, dms, c.l. works, lb.	38% 51 1/2	-	
Fructose, crys., 18,000 kilos or more, dms, lb.	80	1.03	
Fumate acid, lowmelt, gals, l.t. l.t. eqval., lb.	75% 72 1/2	-	
tech. grade, gals., l.t., l.o.b. l.t. eqval., lb.			
Furfural, tanks, l.o.b. Canada Flapids, ton, and Beta Grade Flids, lb.	76	-	
Furfuryl alcohol, tanks, l.o.b. Memphis, Tenn. and Omaha, Neb., lb.	72	-	

G salt, dms, l.t. alid., 100% basis, lb.	2.30	-
Gaffin acid, 400-lb. lots, kilo	23.05	-
l.o.b. works, kilo	86.00	106.00
Gallatin, active, 100 ACG test, dms, l.t. dms, lb.	1.50	1.75
150 ACG test, dms, lb.	1.75	1.85
125 ACG test, dms, l.t., lb.	1.85	1.95
200 ACG test, dms, l.t., lb.	1.95	2.05
225 ACG test, dms, l.t., lb.	2.05	2.15
250 ACG test, dms, l.t., lb.	2.15	2.25
275 ACG test, dms, l.t., lb.	2.25	2.35
300 ACG test, dms, l.t., lb.	2.35	2.45
Gentian violet (see Methylene blue chloride), lb.	5.25	-
Geranyl acetate, 50-55% dms, lb.	3.50	-
Geranyl acetate, 50-55% dms, lb.	3.75	-
Geranyl acetate, 50-55% dms, lb.	5.50	27.50
Geranium oil, Moroccan, lb.	33.00	38.00
Bourbon, kilo	87.00	86.00
Chinese, lb.	55.00	-
Euphorb (see Palmarosa oil), lb.	5.44	5.00
Geranyl acetate, dms, lb.	10.95	-
Geranyl acetate, dms, lb.	6.80	-
Geranyl acetate, dms, lb.	18.98	-
Gibsonite, g.p., bulk, l.t., l.o.b. ton	80.00	-
selects, same basis, lb.	180.00	-
Ginger, Ceylon, gals, lb.	55	70
Chinese salad, lb.	36.00	46.00
Ginger oil, Chinese, kilo	44.00	46.00
l.o.b. works, lb.	30.00	-
Ginger oleoresin (see Sodium sulfite), lb.	50	-
Glabur's salt (see Borom sulfite), lb.	34	-
Glabur's salt, 50% dms, lb.	34	-
Glabur's salt, same basis, lb.	34	-

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**WEEK ENDING SEPT 26, 1986**

Porchlorothylene, dry cleaning grade, dstr., tanks, divd.	28%			sta. i.o.b. Charlotte, N.C., lb.	5.00	
Indust. grade, consumera, tanks, divd.	.81			Pigment green B, kgs.	2.20	
Perfaced, dms., frt. alid.	2.55			Phosphoric hydrochloride, USP.	1,800.00	2,000.00
Permanent red 2B, grad 46, cotton balls, dms., frt. alid.	5.25			Pimento see Atepic		
Perfum. satta, same base.	lb.			Pimento leaf oil, dms.	14.50	
Peru butano, lb.	3.25			Pine oil, 80% min. alcohol content, bulk, 100 lbs. works	100	53.00
Petrolin of Paraguay	3.10			dms., c.i., t.f.		
Petrolatum, USP, snow white, dms. c.i., raly.	.875		5.25	base	100 lbs	51.00
lanks, rel., frt. alid.	lb.			a-Phena, perfume grade	1.62	
USP soft white, dms., c.i., raly.	.370			tech. grade	1.18	23
tanks, rel., frt. alid.	.316			Phenylmercuric glycerate, kils	2.50	
USP, lily white, dms., c.i., raly.	.370			tech. grade tanks	.35	40
Petrolatum, USP, lily white, tanks.	305			Piperazine, anhyd., dms., lt. frt. alid.	1.80	
USP cream, dms., c.i., raly.	.30			E		
tanks, rel., frt. alid.	.30			Piperazine citrate, 35%, dms., 1,100-lb. lots, frt. alid.	2.25	2.35
USP, soft yellow, dms., c.i., raly.	.250			Piperazine dithyodichloride, 53%, dms., l.f., frt. alid.	2.00	
USP, snow white, dms., c.i., raly.	.285			Piperazine hexahydrate, 44%, dms., 1,100-lb. lots, frt. alid.	1.80	
tanks, rel., frt. alid.	.280			Piperazine phosphide, 2%, dms., l.f., frt. alid.	1.80	
Petroleum pitch (see Asphalt, petroleum).				Piperidine, dtd. 85% min., dms., c.i., l.f., work.	6.92	
Petroleum sulfonate, 60-92%, sulfonate, 80-90%, 100-lb. tanks	.48%	.46		Phenol butoxide	5.00	
MMW, same base	.49			Platinum metal, works	Troy oz.	565.00
LMW, same base	.48%	.48%		Polycarbonates resin, pallet, nat. l.f.	1.84	1.88
Prices for 5% sulfur content 2c per lb. lower on com-				Polyacetylene resin, anhyd., g.p., or- thophthalic, bulk		
Phenacetin-UPF, powd., 200-lb. dms., 1,000-lb. lots, divd.	2.20			frt. alid.	.51	.53
100-lb. lots, divd.	2.22	2.45		Isophthalic, same base	.56	.62
p-Phenetidine, USP, dms., 500-kilo lots, i.o.b. works	16.50			Injection molding, g.p. hopper cars, frt. alid.	.43	.48
Phenobarbital, USP, dms., 500-kilo lots, i.o.b. works	27.00			extrusion, g.p. hopper cars, same base	.47	.48
Phenol, sty. tanks, frt. equid.	25	28		wire and cable, nat. hopper cars, same base	.47	.48
p-Phenol sulfonic acid, 85% act'n, dms., c.i., lob works	.84			wire and cable, black, same base	.55%	.57
tanks, same base	.58			Polyethylene resin, low-density, film liner, hopper cars, frt. alid.	.38	
Phenothiazine, indust. grad. 80-90% bags, c.i., i.o.b. works	2.33			clearly film, hopper cars, frt. alid.	.37	
purif. grade, same base	2.89			pellet shrink film, hopper cars, same base	.35	
Phenyl acetate, dms., 100-lb. lots, works	1.04			extrusion coating, hopper cars, same base	.38	.42
Phenylacetic acid, pure cryst., 25-lb. crs.	4.50			g.p. hopper cars, frt. alid.	.38	.42
di-Phenylalanine, dms., 25-kilo lots	64.00			Polyethylene linear low-density g.p. resin	.39	.40
l-Phenyl-3-carbathoxy propylamine, dms., 200-lb. lots, divd. E.	3.45			blown film resin	.40	.43%
m-Phenylenediamine, cest. dms., c.i., l.o.b. works	2.07			Polyethylene resin, low-density, extrusion molding, g.p. hopper cars, same base	.45	.48
o-Phenylenediamine, flaked, dms., l.o.b. works	3.25			linear, CATV, power cable	.647	
p-Phenylenediamine, flaked, dms., l.o.b. works	4.00			linear, nonmetallic, 100-volt, nat. voltage, natural, com. same base	.70	.74%
Phenylethyl hydrochloride, 25-lb. crs.	5.50	5.80		wire and cable, XLPE low voltage, 14% carbon black, same base	.87%	.72%
Phenylethylamine, 25% min., dms., l.f.	3.50			wire and cable jacketing, black, lb.	.587	.667
l-Phenyl-3-methyl-5-pyrazolone, dms., 250-lb. lots, divd. E.	1.80			Polymerized styrene, USP, bulk, 50-billion units, min.	52	
p-Phenylenediamine, s.i., work.	1.35	2.00		Polyoxyethylene units, 100,000-lb. lots, works	.73	
p-Phenylenediamine, 40,000-lb. or more, works	1.85			Polypropylene resin, homopolymer, g.p., nat. l.f., frt. alid.	.45	.46
Phenylpropenamine hydrochloride, 100-lb. dms.	24.00	28.00		copolymer, med. impact, nat. same base	.50	.56
Phenylsulfonate, purit. crys. dms.	2.75			High impact, same base	.53	.58
tech. crys. E.	2.25			Colored material 8c. per lb. higher for soft grade		
Phloxine (tonar 90), dms., lb.	1.26	2.05		Polystyrene resin, nat. l.f., hopper cars, frt. alid.	.48	
Phosgene, 1-ton ret. cyls., 5 to 6-cyl. quantities, works	55	.87		Impact, nat. hopper cars, same base	.51	
Phosphate rock, fls., land and mine washed, 68-88% p.p., bulk c.i. mines	23.1					

Potassium bichromate, gran., 400-lb. dms., c.i., l.i., works.	48	-
Potassium bitartrate, tech. dms., l.i., works, frt. equivd.	45	.40
Potassium bitartrate, NF, gran., powd., bgs.	.90	1.20
Potassium hydroxydisulfate, 100-1,000 lbs. works.	18.00	20.00
Potassium bromate, gran., powd., 200-lb. dms., c.i., l.o.b.	1.08	-
Potassium bromate, gran., dms., c.i., l.o.b. works.	1.12	-
Potassium carbonate, frt., 47% K <sub>2</sub> CO <sub>3</sub> , tanks, t.w., works.	14.60	-
dms., c.i., l.i., works.	20.85	-
calced, 88-100% K <sub>2</sub> CO <sub>3</sub> , paper cars or trucks.	32.50	-
bgs., c.i., l.i., works.	35.20	-
Potassium carbonate, gran., purif., 400-lb. dms., 5-m. lots.	18.40	-
Potassium chloride, cryst. dms., c.i., works.	14.15	-
powd., dms., c.i., works.	30	-
purif., gran., 325-lb. dms., l.o.b.	40	-
stripping plant.	40	-
Potassium chloride, chemical grade, 99.95% KCl, bulk, c.i., l.o.b. works.	105.00	-
USP, grad. dms.	1.12	-
USP, gran.	.87	-
USP, powd., dms.	.87	-
Potassium chlorate, agricultural (see Potassium manganate).	-	-
Potassium chromate, purif., cryst. dms., works.	57	-
Potassium citrate, NF, gran., 200-lb. dms., frt. alid.	.9315	-
Potassium cyanide, dms., 20,000-lb. lots or more, l.o.b. works.	1.32	-
Potassium dichromate (see Potassium bichromate).	-	-
Potassium fluoride, tech. dms., c.i., l.i., works, frt. equivd.	1.40	1.42
Potassium fluoride, anhyd., dms., l.i.	1.98	-
Potassium gluconate, dms., l.i., l.o.b. works.	1.45	-
Phos W. of Denver 4c. per lb. higher.	-	-
Potassium guaiacolate, 300-lb. dms., 600 lbs. or more frt. equivd.	2.10	-
Potassium hydroxide, tech. (see Potassium hydroxide, USP, pallets).	-	-
Potassium hydroxide, USP, pallets, 100-lb. dms., c.i., l.i., works, frt. equivd.	1.26	1.31
Potassium iodide, USP, gran., cryst. dms., 1,000-lb. lots.	10.72	12.30
ACS grade truckload.	11.32	13.55
Potassium-magnesium sulfate, std., bgs., works.	58.00	-
ion basic, 40% K <sub>2</sub> SO <sub>4</sub> and 55% MgSO <sub>4</sub> , bulk, works.	67.00	-
Potassium metabisulfate, gran., dms. l.i.	.44	-
Potassium murexide, 80-82.4% min. K <sub>2</sub> CO <sub>3</sub> s.d., b.i., works, frt. equivd., l.o.b. S. works.	44.00	45.00
Canada.	44.00	45.00
soluble, fine alid., l.o.b.	48.00	47.00
Sask.	49.00	50.00
ion coarse, l.o.b. S. works.	49.00	50.00
gran., l.o.b. Sask.	50.00	51.50
Potassium nitrate, frt. grade, std., 50-ton cl., divd SE.	267.00	274.00
ion tech., bgs., c.i., min. 50 tons, divd.	277.00	284.00
Potassium oxalate, neutral, tech., ion gran., powd., 300-lb. dms., frt. equivd.	470.00	-
Potassium pentaborate, gran., bgs., c.i., works.	1.01	-
dms., same basis.	1.05	-
Potassium pentaborate powder 15c. per lb. higher.	-	-
Potassium persulfate, dms., c.i., works.	.78	-
Potassium permanganate, fine flow-ing, bulk, hopper fricks.	1.09	-
50-kg. bgs., same basis.	1.20	-
150-kg. dms., same basis.	1.17	-
Potassium permanganate, USP, 50-lb. bgs., works, c.i., l.i.	1.36	-
Potassium persulfate, 225-lb. dms., 24,000 lbs. or more, l.o.b.	78.80	-
plant.	72.50	-
off same basis.	72.50	-
Potassium pyrophosphate, technical, bgs., c.i., l.i., works, frt. equivd.	43.75	47.25
bulk, same basis.	45.00	45.50
Potassium salicylate, USP, gran., 200-lb. dms., 2,000 lbs. or more, works, frt. alid.	1.52	-
USP, powd., 300-lb. dms., 2,000 lbs. or more, same basis.	1.42	-
Potassium silicate, solns., 20.8-30.2 Bz., 2.5 ratio, l.o., t.i., works.	16.90	-
dms., c.i., l.i., works.	25.90	-
Potassium silicate, 40-40.5 Bz., 2.1 ratio, l.o., t.i., works.	26.00	-
40-40.5 Bz., 2.1 ratio, dms., c.i., l.i., works.	32.05	-
Potassium silicate, electrolytic grade, 30-30.4 Bz., 2.1-2.2 ratio, l.o., t.i., works.	26.10	-
dms., c.i., l.i., works.	33.10	-
solid or glass, 15 ratio, dms., c.i., l.i., works.	63.50	-
solid or glass, 2.5 ratio, dms., c.i., l.i., works.	45.65	-
"Ratio" indicates percentage by weight of SiO <sub>2</sub> divided by percentage by weight of K <sub>2</sub> O.	-	-
Potassium silicofluoride, bgs., c.i., l.i., frt. equivd.	.1115	.15
Potassium sulfate, NF, gran., or powd.	.80	1.20
Potassium tartrate, l.i., dms.	1.20	.80
Potassium tetraborate, frt. alid., l.o.b.	N.A.	-
Potassium sulfate, agricultural grade, min. 95% K <sub>2</sub> SO <sub>4</sub> , bulk, c.i., l.o.b. works.	150.00	180.00
Potassium sulfate, gran., purif., 400-lb. dms.	.86	-
Potassium tetraborate, gran., bgs., c.i., works.	1.10	-
dms., same basis.	1.15	-
Potassium tetraborate powder 15c. per lb. higher.	-	-
Potassium thiocyanate, USP, crystal, 225-lb. dms., 5-m. lots.	4.01	-
tech. divd. dms., l.i.	.82	-
Potassium titanate, dms., c.i., works.	.714	-
Potassium-titanium fluoride, tech., dms., l.i., works, frt. equivd.	1.24	-
Potassium-zincum fluoride, tech., dms., t.i., works, frt. equivd.	.78	-
Prednisone USP, dms., 5 kilos or more.	1.03	-
Prednisolone acetate, USP, dms., 5 kilos or more.	1.12	-
Prednisolone, anhyd., USP, dms., 5 kilos or more.	1.12	-
Procaine hydrochloride, USP, anhyd., 400-lb. dms., 5-m. lots.	4.96	5.20
Procaine hydrochloride, USP, ampule grade, dms., 1,000-lb. lots, frt. alid.	4.95	5.15
Propionic acid, tanks, l.o.b.	3815	-
Propionic acid, 5% soln., tanks, divd.	33	-
E.	530	-
n-Propyl acetate, tanks, divd.	.42	-
n-Propyl alcohol, tanks, divd.	.42	-
n-Propyl glycol, tanks, 100 to 2,000-lb. lots, divd.		

[illegible]

Sodium orthosulfate, tech., anhyd.	34.50	
Sodium orthosulfate, tech., hydrated	27.45	
lake, dms., c.i. works	28.26	
bgs., c.i. works	28.26	
Sodium oxalate, 98% tech., li. works	45	
Sodium pentametaphosphate, basic		
c.i. 30,000-lb min.	87	
bgs.	88	
Sodium pentaborate (see Pentaborate-sodium)		
Sodium perborate, tetrahydrate, tech.		
bgs., c.i. l.i. works	32 1/2	38 1/2
Sodium persulfate, 25%-lb. dms., 24,000		
lb. same base	83 1/2	
55-lb. bag, more basic	82	
bgs., c.i. l.i. works	82	
Sodium phosborate (see Phosphoborate)		
Sodium phosphonate, powder, dms.	78	
Sodium phosphate, anhyd., dibasic		
tech., bgs., c.i. l.i. works, frt.		
equid.	54.50	
food grade, same basis	57.50	
Sodium phosphate, monobasic, tech.		
same basis	55.75	
food grade, same basis	58.75	
lb. dms., tech., same basis	52.25	52.75
food grade, same basis	53.25	
chlorinated, same basis	31.50	
cryol., tech., same basis	30.50	
cryol., food grade, same basis		
c.i. 30,000-lb min.	35.50	
USP, diad. powder, bgs., dms.		
bgs., c.i. l.i. works	1.50	20 1/2
Sodium pyrophosphate, tech., anhyd.		
lb. dms., cryol. divd.	68	
Sodium propionate, dms., 2,000-lbs or more, f.o.b. frt. add.	54	
Sodium pyrophosphate acid, tech., bgs.	68.25	
c.i. works, frt. equid.	68.25	
food grade, non-leaving, bgs., c.i. works, frt. equid.	81.25	
Sodium pyrophosphate, ferric, dms., c.i. l.i. works	38.80	
Sodium pyrophosphate, labarabic		
anhyd., tech., bgs., c.i. l.i. works, frt. equid.	44.75	
bulk, hopper cars, same basis	42.50	
all	100 lbs.	
food grade, bgs., c.i. l.i. same basis	63.00	
Sodium saccharate, USP, cryol., 200-lb. min., 1,000-lb. or more		
works, frt. equid.	3.00	
USP, powder, 200-lb. min., 1,000-lb. or more, same basis	3.05	
Sodium sesquicarbonate, bulk, c.i. l.i. works	178.00	
bgs., c.i. l.i. works	160.00	
Sodium silicate, solid, or glass, 3:2:2, 3:2:5 ratio, bulk, c.i. l.i. works	15.70	
bgs., c.i. l.i. works	27.75	
1.95-2.00 ratio, bulk, c.i. l.i. works	20.30	
bgs., c.i. l.i. works	22.15	
soil.	37.87	
ratio, bulk, c.i. l.i. l.i. equid.	6.30	
"Ratio" indicates percentage weight of SiO <sub>2</sub> divided by percentage by weight of Na <sub>2</sub> O		
Sodium silicofluoride, bgs., c.i. l.i. works	17.95	19.75
Sodium stannate, dms., wks. H. and E. B.	22	
Sodium sulfadiazine, dms., works		
2,000-lb. min. powder, dms.	23 1/2	
tech., detergent, rayon-grade, c.i. works, Gulf.	90.00	98.00
Sodium sulfite, West Coast, c.i. works, frt. equid.	93.00	101.00
bulk, c.i. East, same basis	110.00	114.00
Sodium sulfate, photo grade	47.00	53.00
bgs., c.i. l.i. works		
Sodium sulfite, flake, 70-72% dms., c.i. l.i. works, frt. equid.	500.00	
liq., 44-46%, tanks, works, frt. equid.	500.00	
Sodium sulfite, flake, dms., c.i. works, E. frt. equid.	47.00	
bgs., same basis	410.00	
Sodium sulfite, liquid, dms., c.i. works, E. frt. equid.	240.00	
Sodium sulfite, anhyd., tech., 85-100% bgs., c.i. l.i. works	23.78	
Sodium sulfite, anhyd., tech., 85-100% bgs., c.i. l.i. works	100 lbs.	
Sodium tetraborate (see Borax)		
Sodium tetraborate, liq. 34% dms., c.i. works, frt. equid.	540.00	
Sodium thioacetate, purif., cryol., li. dms., 5 dms., or more		
l.i. works	3.28	
tech., anhyd. dms., 2,000 lbs. or more, works	57	
Sodium thiosulfate, tech. grade, anhyd., 100-lb. bgs., c.i. l.i. works, frt. equid.	45.50	
bgs., c.i. l.i. works	28.50	14 1/4
Sodium tetrachloroarsate, 95% 50-lb. bgs., c.i. frt. add.	28	
Sodium tetrachloroarsate, 95% 50-lb. bgs., c.i. frt. add.	38.75	
Sodium tetrachloroarsate, 95% 50-lb. bgs., c.i. frt. add.	37.50	
bulk, hopper cars, same basis	48.50	
food grade, bgs., c.i. l.i. same basis		
tech., high molty.		
c.i. 10,000 lb. or more, frt. add.	5.00	5.50
Folin grade dms., 10,000 lb. or more, same basis	8.00	
Sodium tetrametaphosphate, purif., cryol., dms., works	62	
Sodium-formaldehyde acrylate, dms., l.i. l.i. works	19	
Sodium tungstate, dms., 1,000-lb. min. or more, works	28	
tech., any quantity, works	18	
Sodium tungstate, purif., straight		
aromatic, fr. 320-350°F		
65°F m.p.p., tanks:		
New Jersey	1.52	
Houston	1.54	
Solvent naphtha, commercial, straight aromatic, 60-70°F		
410°F m.p.p., tanks:		
New Jersey	1.50	1.38
Houston	1.50	1.38
London	1.50	1.38
Monsie	1.50	1.38
Solvent naphtha, commercial, straight aromatic, 60-70°F		
410°F m.p.p., tanks:		
New Jersey	1.50	1.38
Houston	1.50	1.38
London	1.50	1.38
Monsie	1.50	1.38

# CHEMICAL PRICES

**WEEK ENDING SEPT 26, 1988**

September 29, 1988











# CHEMICAL PROFILE

## FORMALDEHYDE

SEPTEMBER 29, 1986

SUPPLY	CAPACITY*
<b>PRODUCER</b>	
Borden (11 sites).....	1,760
BTL (4 sites).....	320
Celanese (3 sites).....	2,060
Chembond (3 sites).....	390
D.B. Western (2 sites).....	90
Du Pont (5 sites).....	1,370
GAF (2 sites).....	200
Georgia-Pacific (8 sites).....	1,165
Hercules.....	170
IMC.....	135
Monsanto (3 sites).....	610
Perkins Industries.....	80
Rogue Valley Polymers.....	300
Wright Chemical.....	114
<b>Total.....</b>	<b>8,584</b>

\*Millions of pounds annually on a 37 percent basis. Borden added 200 million pounds of capacity to its 250-million-pound-per-year Geismar, La., unit in February. BTL Specialty resins, owned by Bakelite Thermosets Ltd., Canada, acquired 283 million pounds of capacity from Reichhold Chemicals Inc. at 4 locations in June. In June newly acquired units, BTL shut the 73 million pound plant at Tuscaloosa, Ala. In June plans to idle the 50 million pound unit in Kansas City, Kan. early next year, and plans to idle the 130 million pound per year unit in Tacoma, Wash. In 1985, Nuodex Reichhold shut a 32 million pound per year plant at Ford, N.J. In February, 1985, Wright Chemical purchased its White City, Oregon plant from Reichhold in 1985. Wright Chemical added 34 million pounds of annual capacity to its Wilmington, N.C. plant this September. D.B. Western started a new 40-million-pound unit in Las Vegas, New Mexico in January. Its other 40-million-pound unit in Lee Vegas, New Mexico is three years old. Profile last published 9/28/83, this revision, 9/29/85.

**DEMAND**  
1985: 5.8 billion pounds; 1986: 6 billion pounds; 1990: 6.63 billion pounds.

**GROWTH**  
Historical (1980-1985): 4 percent per year; future: 2.5 percent per year.

**PRICE**  
Historical (1952-1983): High, 9.05c. per pound, 37 percent basis, uninhibited, tanks, divd.; low 3c. per pound, same basis Current: 6 cents per pound, same basis.

**USES**  
Urea formaldehyde resins, 27 percent; phenolic resins, 21 percent; acetylenic chemicals, 11 percent; polyacetal resins, 8 percent; pentaerythritol, 7 percent; hexamine, 5.5 percent; urea-formaldehyde concentrates, 5.5 percent; melamine resins, 3.8 percent; MDI, 4.7 percent, miscellaneous, 5 percent.

**STRENGTH**  
A strong housing industry is bolstering demand for major end use markets; urea-formaldehyde resins, phenolic resins and pentaerythritol. Sharply lower methanol prices this year have reduced production costs for this largely captive chemical. Concern about formaldehyde toxicity to chemical workers has been

Continued on Page 48

## Rohm & Haas' Dicofof Ordered Back by EPA

Environmental Protection Agency last week ordered an immediate halt to the distribution and sale of dicofof pesticide active ingredients manufactured by Rohm and Haas Company since June 29 of this year.

The agency also cancelled product registrations that contain dicofof as an active ingredient and asked the company to recall all cancelled stocks.

EPA says Rohm and Haas provided data demonstrating that it failed to meet the reduction levels of DDT and related contaminants in dicofof which the agency required. The reduction was ordered earlier this year to protect the environment from high levels of DDT contamination.

A Rohm and Haas spokesman says the company intends to comply with the provisions of the order and has already begun the notification process to recall materials produced after June 28.

### PRODUCTION PROCESS

"We feel we can modify our production process to a month or so, adding a post-production process that will bring us within the newly defined 2.5 percent limit (of DDT content)," he says.

Dicofof is used to control various species of mites, primarily on cotton and citrus.

Last May, EPA issued a regulation requiring a two-stage reduction of DDT in all dicofof products manufactured after June 29, 1985. DDT includes DDT, DDD, DDE, tetra-chloro-DDT and other DDT related compounds.

After June 29, all dicofof products were to contain less than 2.5 percent of DDT contaminants in the technical-grade compounds. After December 31, 1988, all technical-grade products must contain less than 0.1 percent DDT.

EPA says the data submitted by Rohm and Haas to support the continued registration of its dicofof products show DDT contamination two to three times greater than the maximum permissible level.

The Rohm and Haas spokesman says the company does not agree with EPA's interpretation of the data, but has no plans to contest the agency's action. He also says Rohm and Haas will make the necessary engineering and processing modifications to meet the less than 0.1 percent DDT standard when it takes effect in 1988.

DDT, once a widely used insecticide, was banned in 1972 by EPA after it was shown to cause severe reductions in the reproductive success of various fish and birds. DDT, unwanted contaminants in the manufacturing of dicofof, may cause thin eggshells and other adverse reproductive effects in birds.

In addition, the rate of mortality in developing fish eggs increases as DDT residues in fish increase. DDT are long lasting in the environment and build up in the food chain. Therefore, birds-of-prey, like the peregrine

falcon, are especially affected by these compounds.

The cancellation action applies not only to all dicofof products formulated by Rohm and Haas since June 29 but also to those products formulated by other registrants who obtained their dicofof active ingredients from Rohm and Haas. These dicofof registrations account for a significant percent of the 103 million pounds used in the U.S. each year.

Not immediately affected by the actions are the dicofof active ingredient products manufactured by Makhteshim-Agan (America) Inc. of New York, the only other manufacturer of dicofof active ingredients.

However, EPA has determined that the product chemistry information submitted by Makhteshim-Agan may not be adequate and is requiring additional data within 30 days in order to assess whether their dicofof products meet the 2.5 percent DDT upper limit.

There are approximately 84 registrants formulating products with dicofof active ingredients. About 55 percent of these failed to respond to the May reporting requirements. As a result, EPA also is now notifying these companies that their registrations are cancelled for failure to respond to agency requirements. Users having leftover dicofof stocks may continue to use these stocks until they are depleted.

### EPA REVIEW

EPA conducted a special review of dicofof, between March 1984 and May 1985. As part of its assessment, EPA consulted with the Department of Interior's U.S. Fish and Wildlife Service (FWS) concerning the effects of continued use of dicofof on endangered species.

FWS responded by saying that the peregrine falcon would be in jeopardy from the use of dicofof of current geographical use patterns and rates. FWS further stated that in all parts of the United States, except California, jeopardy to the peregrine falcon could be precluded by reducing the level of DDT in technical dicofof to 0.1 percent, consistent with the time frame set by EPA. A large portion of dicofof use is in California.

OES concluded that the situation in California called for one of two alternative actions: banning immediately all sale and use of dicofof products containing levels of DDT greater than 0.1 percent; or requiring dicofof registrants to fund a portion (\$325,000) of the privately-run program to aid the recovery of the peregrine falcons in California.

The funds for the second alternative would be used to offset the negative effects of the use of dicofof and assure the continued recovery of the bird population during the period before all products containing more than 0.1 percent DDT are prohibited in channels of trade.

Dicofof has been registered since 1967. Its trade names include "Acarin," "Keltan" and "Mitlan." All current production is outside the U.S. Major usage is in Arizona, Florida, Texas and California.

# JOBS & PEOPLE

## W.R. Grace Elects Agricultural V-P's

W.R. Grace & Co. has elected C. Dean McWilliams and Harry B. Risinger corporate vice-presidents. Both men are from the agricultural chemicals group, based in Memphis, Tenn.

Mr. McWilliams joined Grace in 1964 as a salesman in the Nitrogen Products Division. In his tenure at W.R. Grace, he has been regional manager, vice-president of fertilizer marketing and executive vice-president of marketing with the agricultural group.

Mr. Risinger has held several managerial positions with the agricultural group, including manager of financial analysis.



William E. Fell, who has been appointed president of the inorganic chemicals division of W.R. Grace, will be responsible for production and sales of chlorine, hydrochloric acid and a variety of chlorates and other chlorine-based chemical commodities.



C. McWilliams

director of planning and development at Thome-Poulenc Inc., where he will be responsible for strategic planning and evaluating capital investment projects.

ILLIA GAWILLAW has been appointed director of planning and development at Thome-Poulenc Inc., where he will be responsible for strategic planning and evaluating capital investment projects.



D. Trost

director of product development for SVO Enterprises in Columbus, Ohio. ANTHONY J. ESPOSITO has been elected vice-president of Horan Associates, Inc. He will continue his duties as general manager of Horan's headquarters in New York. ALVIN H. MAY has been named vice-president of the corporate sales division at Nalco Chemical Company. JOSEPH M. PELLISH has been appointed



Howard M. Nelson, who has been named president of Kaiser Chemicals, the industrial and specialty chemicals division of Kaiser Aluminum & Chemical Corporation. Mr. Nelson will continue as a senior vice-president of the Kaiser Corporation while relocating to Cleveland.

director of regulatory services for the St. Paul-based H.B. Fuller Company. GARY J. HEFFNER has joined Atlantic Industries, Inc.'s sales staff, serving accounts in Wisconsin, Michigan and Minnesota. CHARLES J. BENJAMIN has been named vice-president of sales of an expanded marketing and distributing department at Arco Chemical Company.

RICHARD S. GRANT has been elected president of BOC Group, Inc., a new division of BOC Group, Inc. JOHN S. HEGEDUS has joined Sterling Drug Inc. as vice-president of the corporate development department. DAVID E. JONES has been appointed vice-president of the special products division of A.H. Robins Company.

A. BRUCE SHAPIRO has been named vice-president of corporate planning at Enzo



A. Esposito

mediated product sales representative in Ohio, Michigan and Kentucky for BioGuard's chemical specialties division. Bio-Lab... RICHARD S. GRANT has been appointed consultant to the Advanced Materials & Electronics Division of Chem Systems Inc. STEPHAN RUDOLPH has been elected manager of the product technology practice at Arthur D. Little, Inc.

## Soltex Polymer Names New Product Managers

Soltex Polymer Corporation has appointed Joe Muzikowski business manager for "Fortlene" polypropylene and Bill Mould product manager for "Solex" polyvinylidene fluoride.

Mr. Muzikowski was formerly director of marketing services. Mr. Mould comes from the "Solex" sales division.

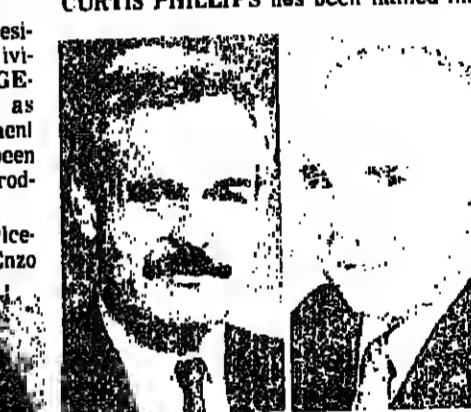
Soltex, a subsidiary of Solvay American Company, is headquartered in Houston, Tex. Solvay & Cie. SA, based in Belgium, is the parent company.



J. Muzikowski

Bloeborn Inc. PETER L. PETRULO has been appointed district sales supervisor of the Adhesives Division at National Starch & Chemical Corporation. WILLIAM F. LALOR has been elected president of Stuart Pharmaceuticals, a division of ICI Americas Inc.

CURTIS PHILLIPS has been named inter-



P. Petrulo

mediated product sales representative in Ohio, Michigan and Kentucky for BioGuard's chemical specialties division. Bio-Lab... RICHARD S. GRANT has been appointed consultant to the Advanced Materials & Electronics Division of Chem Systems Inc. STEPHAN RUDOLPH has been elected manager of the product technology practice at Arthur D. Little, Inc.

# MEETINGS CALENDAR

SEPT 29, 1986

## THIS WEEK

EUROPEAN PETROCHEMICAL ASSOCIATION, annual meeting, Monte Carlo, Monaco, September 28-October 1.

## OCTOBER

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS & COLORISTS, International conference and exposition, Westin Peachtree Plaza Hotel, Atlanta, Ga., October 28-31.  
AMERICAN MICROCHEMICAL SOCIETY, eastern analytical symposium, jointly with American Chemical Society and Society for Applied Spectroscopy, New York Hilton Hotel, New York, October 20-24.  
AMERICAN OIL CHEMISTS SOCIETY, second world conference on detergents, Montreux, Switzerland, October 5-10.  
ASSOCIATION OF THE NON-WOVEN FABRICS INDUSTRY, eighth international conference and exposition, Georgia World Congress Center, Atlanta, Ga., October 21-23.  
CHEMICAL GROUP, NATIONAL ASSOCIATION OF PURCHASING MANAGEMENT, Fall Conference,

Marriott Pavilion Hotel, St. Louis, Mo., October 21-25.  
CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION, seminar on aerosol technology, Ramada Hotel O'Hare, Rosemont, Ill., October 27-28.  
COMMERCIAL DEVELOPMENT ASSOCIATION, impact of mergers and acquisitions on the future of technology-driven corporations, Hershey Hotel, Hershey, Pa., October 28-29.  
ORU, CHEMICAL & ALLIED TRADES ASSOCIATION, 88th annual meeting, The Breakers, Palm Beach, Fla., October 15-18.  
EUROPEAN CHEMICAL MARKETING RESEARCH ASSOCIATION, 1986 conference, "The Chemical Industry Faces Its Future," Swirel Eurotel, Antwerp, Belgium, October 13-15.  
EUROPEAN PETROCHEMICAL ASSOCIATION, distribution meeting, Hotel Loeve, Monte Carlo, Monaco, October 19-22.  
FIRE RETARDANT CHEMICALS ASSOCIATION, Fall conference on proper processing and selection of flame retardants, Kiewit Island, S.C., October 19-22.  
NATIONAL REINFORCERS ASSOCIATION, 53rd annual convention, Ritz-Carlton Hotel, Naples, Fla., October 14-18.

## NOVEMBER

AMERICAN PETROLEUM INSTITUTE, annual meeting, San Francisco, Calif., November 9-11.  
CHEMICAL MARKETING RESEARCH ASSOCIATION, business school, personal computers in the workplace, Seaton Executive Conference Center, Princeton, N.J., November 6-7.  
ORU, CHEMICAL & ALLIED TRADES ASSOCIATION, Fall luncheon, Waldorf-Astoria Hotel, New York, November 19.  
FERTILIZER ROUND TABLE, Sheraton Inner Harbor Hotel, Baltimore, Md., November 17-19.  
FRAGRANCE MATERIALS ASSOCIATION OF THE

## LATER ON

CHEM SHOW, 42nd exposition of the chemical industry, Jacob K. Javits Convention Center, New York, Dec. 1-4.  
CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION, 73rd annual meeting, Marriott Hotel, New York, Dec. 1-4.  
NATIONAL ASSOCIATION OF CHEMICAL ENGINEERS, 15th annual meeting, Ritz-Carlton Hotel, Naples, Fla., December 2-4.

# BUSINESS BRIEFS

AIR PRODUCTS & Chemicals Inc. has introduced a new group of epoxy curing products for use in high-performance epoxy resin systems. The material improves the processing and formability characteristics of cellulose acetate film and sheet compounds, according to Hall, and also enhances the processing and flexibility of cellulose-acetate-butylate compounds.

EASTMAN CHEMICAL PRODUCTS has introduced a new development product, 2-phenylhydroquinone, for use as a chemical, pharmaceutical and polymer intermediate. No-charge samples are available for planned evaluation and technical response. The product is long-term guideline price for PHQ in quantities of approximately 200,000 pounds per year is expected to be between \$20 and \$22 per pound, with existing technology.

C.P. HALL COMPANY has reintroduced "Pinthall" dibutoxyethyl phthalate for cellulose and urethane polymer formulations. The material improves the processing and formability characteristics of cellulose acetate film and sheet compounds, according to Hall, and also enhances the processing and flexibility of cellulose-acetate-butylate compounds.

MARTIN MARIETTA MAGNESIA Specialties has appointed M.A.F. Magneite BV as its sales representative for technical and agricultural magnesium oxide products marketed throughout Europe. The products are sold under the "MagChem" name for industrial applications. "AniMag" for animal feeds and "FloMag" for fertilizer suspensions.

HALOCARBON LABORATORIES, Hackensack, N.J., affiliate of Halocarbon Products Corporation, has developed a new 88.9 percent-pure trifluoroacetic acid that eliminates the need for further distillation, according to the company. The acid is used in the production of agricultural products, pharmaceuticals, photographic films and as a catalyst for a range of applications.

UNION CARBIDE CORPORATION has appointed Plastic Distributing Corporation, Ayer, Mass., as its authorized distributor for rotational molding products and "Unipurge" polyethylene purging compounds throughout New England, New York, New Jersey and Pennsylvania. PDC also distributes packaged quantities of selected Carbide telecommunications wire and cable compounds and ethylene vinyl acetate copolymers in New England and New York.

VELSICOL CHEMICAL CORPORATION has moved its corporate offices from downtown Chicago to suburban Rosemont, Ill. Velsicol manufactures and markets professional pest control products and specialty chemicals.

September 29, 1986

CHEMICAL MARKETING REPORTER

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### NEWS AT HOME

Air Products Names Baker	7
Burmah Names Fry	5
Carbide Picks Ramsey	4
Carbide to Expand Latex	4
Celanese Picks Kennedy	9
Commodities Evolving to Few	7
DES Lewalt Seeks \$100 MM	7
Diazinon Hit by EPA	9
Dioxin-Cancer Link Disputed	3
EPA, Amoco Reach Agreement	4
FOIA Limit Approved	9
Fatty Acids Study	9
J&J Enters Accord	9
GATT Talks 'Ambitious'	48
GE Expands 'Ultara' Reelin	15
Grace Reaches Settlement	3
Hazardous Material Info Varies	5
Leaded Gas Bunking Felling?	21
Liability Standard Won't Change	23
McKesson's Chemicals to Univer	9
McNeil Drug Targeted	9
Mutagen R&D Lock	7
Oil Tax Bill Defeated	9
Owens-Corning Restructures	9
Oxy, Church & Dwight Partnership	7
Oxy Names Hurst	4
Pesticide Reform Doubtful	5
Pigment Breakthrough?	7
Pfizer Cites Kohn	18
Pfizer Limestone Branching Out	28
Plasticizer Producers Unite	5
Plastics Plant Planned	9
Polycarbonates Curve Niche	5
PP Expansion Completed	4
P&G Glycerine Doubles	7
R&H's Dicofof Banned	50
Stringfellow Case	4
Superfund Tax Established	3
USI At Top of PE	3

### NEWS ABROAD

Air Products Invests	4
Big Three Sale	9
CMC Unit Complete	4
IMC Agrees to Sell	9
LNG Charter Set	8
Oil and Products Imports Double	5
Oil Price Decline	7
Rhone-Poulenc Ventures	8

### THE MARKETS

AGRICULTURAL CHEMICALS	7.28
ALIPHATIC ORGANICS	7.18
AROMATIC ORGANICS	14
COATING MATERIALS	5.31
DRUGS	19
FINE CHEMICALS	19
FLAVORING MATERIALS	26
HEAVY CHEMICALS	7.28
OILS, FATS & WAXES	11
PERFUMES MATERIALS	26
PLASTIC MATERIALS	5.31

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## WAXES

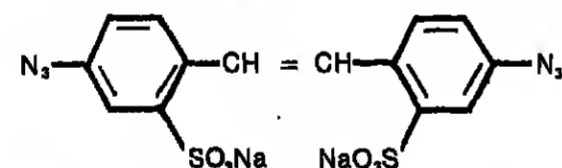
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### CMR MARKET INDEX

CHEMICAL MARKETING	Sept. 26, 1986	152.04
REPORTER's market index of chemicals and related materials (100=1974 average); based on 97 key commercial chemicals, appears alongside with data for two weeks ago, last month and last year.	Sept. 12, 1986	162.58
	Aug. 29, 1986	152.42
	Sept. 27, 1985	152.46

Chemical Prices Start on Page 32

APOMORPHINE-HCl  
ATROPINE SALTS  
CAPSICUM  
HOMATROPINE-HBr  
HYOSCYAMINE-HBr  
PHYSOSTIGMINE SALTS  
SCOPOLAMINE-HBr  
SUCROSE OCTA-ACETATE  
TROPIC ACID  
TROPINE

### ROBECO CHEMICALS, INC.

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WUIG82148  
Our 68th Year

## NAPHTHENIC ACID

**"THE SOURCE"**

**CPS CHEMICAL COMPANY**  
P.O. Box 182, Old Bridge, N.J. 08857 • (201) 727-3100

## Intermediates

- N,O-Bis-(Trimethylsilyl)Trifluoroacetamide
- 1,8-Diazabicyclo [5.4.0] Undecene-(7)
- 1,2-Phenylene Phosphorochloridite
- 2-Amino-4,6-Dimethoxy-pyrimidine
- 2,4,6-Trichlorophenyl Hydrazine
- N,N'-Dicyclohexylcarbodiimide
- Sodium Para Toluene-sulfinate
- 3-Amino-4-Chlorobenzoic Acid
- Acetylene Dicarboxylic Acid
- Diphenyl Disulfide
- Pyruvic Acid
- Squaric Acid
- Piperidine

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### CHEMICAL MARKETING CUES

GLYCERINE: P&G says it will nearly double production capacity. Page 7  
DOP: Producers say broad price increases have a chance of success. Page 5  
PHENOL: Manufacturers schedule two-cent advance for October. Page 1  
PENICILLIN: Prices have been volatile, but may come off.